

**ADVANCES
IN DESCRIPTIVE
PSYCHOLOGY**

Volume 9 ❖ 2010

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ADVANCES IN DESCRIPTIVE PSYCHOLOGY

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Contents

Foreword	
<i>Keith Davis</i>	vii
Introduction to Part One: Ordinary Magic	
<i>Fernand Lubuguin, Keith E. Davis, and Wynn Schwartz</i>	1
Ordinary Magic: What Descriptive Psychology Is, and Why It Matters	
<i>Anthony O. Putman</i>	9
Teaching Culturally Competent Psychotherapy: A Descriptive Psychology Approach	
<i>Fernand Lubuguin</i>	41
Guilty or Not? A Descriptive Psychology Analysis	
<i>Jane R. Littmann</i>	87
Oriental Martial Arts Rehabilitation	
<i>Laurence Saigo Aylesworth</i>	113
The Tolstoy Dilemma: A Paradigm Case Formulation and Some Therapeutic Interventions	
<i>Raymond M. Bergner</i>	143
An Accomplice's Tale	
<i>Mary Kathleen Roberts</i>	161
Introduction to Part Two: World Construction	
<i>Keith E. Davis, Wynn Schwartz, and Fernand Lubuguin</i>	191
Out of Nowhere: Thoughts and Thinking and World Reconstruction (Complete Version)	
<i>Peter G. Ossorio</i>	203
An Indeterminate and Expansive World	
<i>Mary Kathleen Roberts</i>	231

Children’s Imaginative Play: A Descriptive Psychology Approach <i>Charles Kantor, Ph.D.</i>	257
Worlds of Uncertain Status <i>Mary Kathleen Roberts</i>	287
Introduction to Part Three: Common Ground and Shared Practices <i>Wynn Schwartz, Keith E. Davis, & Fernand Lubuguin</i>	321
What is Descriptive Psychology? An Introduction <i>Raymond M. Bergner</i>	325
Structure <i>H. Joel Jeffrey</i>	361
Elucidating <i>Actus Reus</i> and <i>Mens Rea</i>: A Descriptive Psychology Perspective <i>Jane R. Littmann</i>	409
Contributions of Descriptive Psychology to Strategies of Negotiation: The Case of Religion and Government <i>F. Richard Singer and H. Paul Zeiger</i>	431
On Saying “No”: Evidence Based Practice and the Hijacking of the Empirical <i>Wynn Schwartz</i>	453
Authors’ Biographical Sketches	475
Index	485

Foreword

Volume 9 marks the first volume published since the untimely death of our mentor and creative inspiration, Peter G. Ossorio. His presence, intellectual leadership, and guidance have been sorely missed, but he began to prepare us for this transition in the last few years of his life. He laid down a challenge that we go beyond him to new and inventive things with the conceptual resources he provided. Some of the fruits of our response to this challenge can be seen in this volume.

It has been a pleasure to have two new co-editors for volume 9—Fernand Lubuguin and Wynn Schwartz—both of whom are training the next generation of intellectual leaders and clinicians. Fernand has a central role in training PsyD students at University of Denver’s Graduate School of Professional Psychology, where he is the Director of Diversity and Multicultural Training and the Director of the Professional Psychology Center. Wynn Schwartz wears so many hats, it is hard to keep them all straight. He is a professor of psychology at the Massachusetts School of Professional Psychology, on the faculty of Harvard Medical School, and of the Harvard Extension School. He and Fernand maintain small private practices. Each has been essential to the completion of volume 9—both in their individual chapters and in their editorial feedback and suggestions to contributors.

Finally, let me acknowledge the inspired editorial work of Mary K. Roberts, who helped to shape at least five chapters in this volume but who refused the title of co-editor—which she so perfectly deserved. Without her assistance, the volume would both have been less penetrating in its application of Descriptive Psychology and less prompt in its publication.

Keith E. Davis
Columbia, SC
June 2009

Introduction to Part 1: Ordinary Magic

Fernand Lubuguin, Keith E. Davis, and Wynn Schwartz

The first section of this volume demonstrates the power, utility, and applicability of Descriptive Psychology (DP) concepts by addressing a broad range of meaningful and important real-life phenomena and problems. As a comprehensive intellectual discipline, DP concepts provide compelling perspectives for comprehending significant aspects of the human condition and practical strategies for solving human problems. By precisely describing, distinguishing among, and explicating the fundamental concepts of important phenomena, DP effectively increases the behavior potential of persons engaged in these phenomena. The clarity that these explications provide improves the understanding of the phenomena, which in turn enhances the competence with which persons can engage in these important endeavors. The particular endeavors addressed in this first section are: (a) enhancing a person's core competence, which is the competence of being a person "in a world of persons and their ways" (Ossorio, 2006), (b) teaching clinical psychology doctoral graduate students to become culturally competent psychotherapists, (c) making forensic evaluation of persons more responsive to matters of essential concern to the court, (d) improving the rehabilitation of disabled persons with moderate to severe traumatic brain injuries and/or spinal cord injuries, (e) gaining a clearer understanding of a core life problem characterized by the diminished meaningfulness of persons who are acutely aware of their inevitable death, and providing several specific therapeutic interventions, and (f) understanding the complexities and ordinary mysteries in the process of dying, and the ways in which a person can facilitate a personal death.¹

Ordinary Magic: What Descriptive Psychology Is, and Why it Matters²

Anthony O. Putman demystifies the seemingly “magical” nature of human competence, especially in cases of extraordinary competence as demonstrated by highly skilled athletes, actors, and performance artists. Human competence refers to the competence at being a person in a world of persons and their ways. The enactment of this core competence as persons is “invisible” to us, in that we regard such personal enactments just as unremarkable as we regard persons speaking their native language. The ability to speak one’s native language competently is acquired and developed naturally during the course of normal human development. Putman aims to elucidate ways of increasing one’s core competence from the level of being merely unremarkable to the highest level of “ordinary magic”. In order to accomplish such an aim, the “invisibility” of human competence must be made “visible”, thereby describable and improvable, maybe even to extraordinary levels.

Putman applies certain key DP concepts to accomplish his endeavor. He begins by providing a brief background and history of DP. For the sake of clarity, he specifies three aspects of human competence—performance, relationship, and living. As a foundational concept, he describes the DP formulation of verbal behavior, which consists of concepts, locutions, and behaviors. From this, he proceeds to explain the Intentional Action paradigm to elucidate our understanding of human behavior per se. In order to increase relationship competence, we must understand the following: (a) where the relationship begins (which calls for understanding the Standard Normal Relationship), (b) what we want the relationship to be (which calls for understanding Status Dynamics), and (c) what we do to build the intended relationship (which calls for understanding the Relationship Formula and the Relationship Change Formula). In the final section on living competence, he introduces the distinction of the Observer’s world (which is what we see around us) and the

Actor's world (which is what we create as we go along living) in order to understand how persons engage in the world. In the final section, he explains how persons change their worlds by explicating the notions of possible, actually possible, and real. With these distinctions, he eloquently describes how we are all competent in changing how we see our world, and thereby enhancing our core competence and enriching our world.

Teaching Culturally Competent Psychotherapy: A Descriptive Psychology Approach

Fernand Lubuguin continues his work on applying DP to advancing multiculturalism and diversity by focusing on the pedagogy of training culturally competent psychotherapists. In his current role as a faculty member, he applies key relevant DP concepts and methodologies to the courses he teaches on multicultural psychology. To contextualize this academic endeavor, he begins by describing the guidelines for cultural competence, which involves self awareness, understanding culturally different persons, and having skills to implement culturally-appropriate interventions. He then describes the two multicultural psychology courses that he currently teaches.

In his course on Racial/Ethnic Identity Development, Lubuguin applies the following relevant DP concepts: (a) person, (b) paradigm case formulation, (c) parametric analysis, (d) person characteristics, (e) pathological state, (f) status, (g) developmental formula, (h) culture, (i) basic human needs, (j) parametric analysis of culture, (k) standard normal person, and (l) cultural displacement and acculturation. In his course on Culturally Competent Psychotherapy, he utilizes the following concepts and methodologies: (a) part-whole relationships, (b) task analysis vs. process descriptions, (c) sensitivity and judgment, (d) significance and implementation, (e) behavior formula, (f) justification ladder, and (g) emotions. He concludes his chapter by expounding on the power and advantages

of DP as a conceptual framework (versus a theoretical orientation) in minimizing cultural insensitivity and ethnocentrism.

Guilty or Not: A Descriptive Psychology Analysis

Jane R. Littmann offers several distinctive DP concepts to the legal community for the sake of improving the assessment and evaluation of persons in the context of determining their guilt or innocence of a criminal act. In order to contextualize these salient concepts, she presents facts of a problematic case, the possible verdicts of this case (i.e., guilty of murder, guilty of manslaughter, not guilty by reason of self-defense, and not guilty by reason of insanity), and the essential questions that must be answered in order to determine the appropriate verdict. She introduces the following DP concepts in order to understand the behavior in question and the basic facts of this particular case: Maxims 1 and 5, Person, Deliberate Action, Emotional Behavior, Emotional States, and The Face in the Wall.

With these useful and elucidating concepts, she conducts a case analysis that effectively makes sense of the facts independently and as a coherent set of circumstances. Furthermore, this case analysis does not extend beyond the facts and effectively minimizes conjecture in order to generate a comprehensible and cogent explanatory narrative. She effectively demonstrates how the DP conceptual framework can be helpful in analyzing, understanding, and describing the relevant legal and psychological points to be made, while avoiding common pitfalls that often result in erroneous presumptions and misconceptions.

Oriental Martial Arts Rehabilitation

Laurence Saigo Aylesworth integrated his experience and knowledge as a student-teacher of Oriental Martial Arts (OMA)

and as a rehabilitation psychologist, to develop Oriental Martial Arts Rehabilitation (OMAR) for disabled persons with moderate to severe traumatic brain injuries (TBI) and/or spinal cord injuries. OMAR combines the techniques of OMA (i.e., posture, breathing, meditation, stretching, kiai, tai chi, manners, etiquette, aesthetics, and conduct) with the Status Dynamics concepts derived from DP in order to increase the behavior potential of these particular disabled persons. Aylesworth described the development of OMAR by (a) providing a thorough rationale for utilizing OMA in the rehabilitation of persons with TBI and spinal cord injuries, (b) describing the therapeutic practices that are based on DP Status Dynamics principles, and (c) presenting preliminary data that supports the efficacy of this treatment program.

After describing the world of the newly injured person and relevant aspects of his own personal history, he describes the essential components of OMAR. In turn, he applies Status Dynamics principles to explain the ways in which the components of OMAR can be utilized to increase the behavior potential of these injured individuals. Pragmatically, the aim of OMAR includes enabling these individuals to actually engage in behavior that they were incapable of doing prior to treatment, changing their self concept and status from someone who was primarily a disabled and incapable person to one who has some real sense of agency, and learning ways of maintaining these transformations by reconstructing their world. Procedurally, these goals are accomplished through the accrediting status assignments provided by the therapist, which in turn are made real by enacting these new status assignments through the action-oriented techniques. The status reassignments include changing from one who is merely a disempowered “Helpless and Hopeless Invalid” to one who is an empowered “Wounded Warrior”. The outcome data from a modest sample indicates the effectiveness of this treatment program, and as such, is consistent with the DP maxims “a person becomes what he acts as” and “a person becomes what he is treated as being” (Putman, 1998).

The Tolstoy Dilemma: A Paradigm Case Formulation and Some Therapeutic Interventions

Raymond Bergner extends his earlier extensive work on clinical topics by addressing a core life problem faced by a small but significant number of psychotherapy clients. Specifically, these are clients who suffer from an existential dilemma in which they are gripped by a sense that their inevitable death renders everything in their lives meaningless—a sense that “what’s the point of doing or accomplishing anything if in the end I must die?” Bergner has labeled this state of affairs the “Tolstoy dilemma”, since it is precisely the personal dilemma that famously caused a tremendous crisis in the life of Leo Tolstoy.

Bergner uses a paradigm case formulation (PCF) to capture this clinical phenomenon. In this instance, the paradigm case person would be one who entertained five component beliefs: (1) “Being immortal would guarantee meaning for my life.” (2) “Meaning cannot be found in the temporal world that must ineluctably end in our deaths.” (3) “The only meaning is instrumental meaning.” (4) “The key to human happiness is to be a special person in the eyes of other persons.” (5) “My actions make no difference in the long run since, ‘in 100 years, it’s all the same.’”

Following the presentation of this paradigm case formulation, Bergner provides five therapeutic strategies for addressing this Tolstoyan syndrome. First, the clinician can help the client to identify and to question the beliefs just articulated, and to realize more adaptive alternative ones. This can be accomplished through such established forms of interventions as those arising from the cognitive restructuring, existential, status dynamic, strategic, and solution-focused schools of therapy. Second, the therapist, in appropriate cases, might employ a status dynamic paradoxical intervention that involves the client generating and enacting a fantasy experience in which he or she fulfills fantasies of grand personal triumph. Third, the therapist might employ certain status dynamic interventions

that focus on the element of low self esteem present in many cases. Fourth, the clinician, where appropriate, may redescribe the client as having already attained achievement, recognition, and meaningfulness, and thus no longer in need of feverishly pursuing such ends. Finally, Bergner notes that the clinician may discuss explicitly the disadvantages to being a separated and exalted special person set apart from “lesser” others, and the advantages of claiming the status of “one of us”—that is, an ordinary person among other persons in the human community.

An Accomplice’s Tale

Mary K. Roberts extends her work on applying DP to understand a range of world reconstructive phenomena, including dreams, imaginary companions, and worlds of uncertain status. In her current work, she addresses the question of what persons fall back on when they lose attachment to the real world as they approach death. In particular, she applies concepts and ideas from DP to the endeavor of being an accomplice to a person who wants to die in his own way, and not in accordance with conventional manners of dying.

As the overarching structure, Roberts applies the Dramaturgical Model to describe how those who are dying are scenario creators, thereby creating the last scenes of their lives. She utilizes additional DP concepts to develop her thesis. These concepts include: (a) relativity formulations, (b) boundary and boundary conditions, (c) the real world, (d) reality, (e) dreams, and (f) ordinary mysteries. She then synthesizes these concepts to address the problem of understanding a person’s death. Roberts points out that in order to fully understand the significance of the final scenes of a person’s life, we must see them in the context of the person’s entire life. By doing so, we can then realize that during the final stage of one’s life, a person may be replaying old patterns, rewriting history, and/or doing something different. She concludes her chapter by providing a set of reminders for successfully being an accomplice to the dying person for the sake of understanding and legitimizing the unique,

meaningful, and idiosyncratic ways in which a person chooses to die.

Footnotes

1. Because the contributors to DP come from so many and such diverse disciplines as computer science, business, linguistics, theology, and psychology, we do not enforce a strict adherence to APA style. Rather, authors have the freedom to express themselves in the stylistic manner most authentic for them.
2. Based on his 2008 Presidential address for the Society for Descriptive Psychology. The first person style of presentation was maintained for consistency with that address.

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Ordinary Magic: What Descriptive Psychology Is, and Why It Matters

Anthony O. Putman, Ph.D.
Descriptive Psychology Institute

Abstract

Human competence exercised at its highest levels can look a lot like magic. A person's core competence—the competence at being a person in a world of persons and their ways—is, like competence in one's native language, developed naturally in the course of growing from infant to adult. While its exercise is ordinarily adequate in adults, this core competence is essentially “invisible” and taken for granted. Increasing this competence to high levels is greatly facilitated by using the practical and intellectual discipline of Descriptive Psychology to make the “invisible” competence visible, thus describable and open to development. Examples of this “ordinary magic” in performance, relationships and living are given using some conceptual tools of Descriptive Psychology.

Human competence exercised at its highest levels can look a lot like magic. Consider:

- Tiger Woods needed to make a very tricky putt on the last hole to win yet another tournament. The putt was 25 feet, downhill and over a ridge with a nasty double break; Tiger had not sunk a putt over 20 feet the entire tournament but—predictably!—he sank this one to win. All the announcers could say was: “That’s just not humanly possible.”

- Meryl Streep in the film *The French Lieutenant's Woman* portrayed two roles: the 18th century title character, and a modern actor performing that role in a film. At one point the modern actor was discussing the 18th century character with someone, and to illustrate a point she became the character. One moment we saw the modern actor; the next, as if by magic, she transformed into a wholly different person. And it wasn't a trick of editing; the scene was shot in a single continuous take.
- Paganini wrote and performed violin pieces of such fiendish difficulty that he was rumored to have made a pact with the Devil himself. And Franz Liszt amazed (and sometimes annoyed) his contemporaries with his ability to sight-read any piece of piano music, no matter how complex, while carrying on a running commentary on the composition and suggesting improvements. He was reported to do this occasionally with the music turned upside-down.
- Anna Pavlova was world-renowned for her performance as the Black Swan in Tchaikovsky's ballet *Swan Lake*. Eye-witnesses reported that she transformed herself on-stage; her elegant movement and "boneless" arms seemed more swan than human.

Obviously none of these individuals were actually engaging in magic: no spells, no incantations, no trafficking in supernatural powers (although some violinists still wonder about Paganini.) They are "ordinary magicians"—people whose competence produces results so far beyond what the rest of us are capable of, it might as well be magic.

Interesting, you might say, but so what? Professional musicians, actors, dancers and athletes clearly need to be interested in competence, and in taking their own competence to the highest level, but how about the rest of us? Why would competence matter to us? What sort of ordinary magician might we aspire to become?

As it turns out, competence matters a great deal to all of us. We exercise competence constantly, and at a high level, whenever we interact with other people. Competence is required to accomplish

anything in life, from following a simple routine to building and navigating our most complex relationships. Because this competence is so pervasive we rarely notice it; like the air we breathe, it tends to be invisible to us. But try going without air for a while, and you notice how crucial air is for life. The same is true of our core competence: We only notice it when it falls short and leaves us struggling to cope.

Our core competence, which pervades our lives and actions, is simply our competence at living, as Peter G. Ossorio once put it, “as a person among persons in a world of persons and their ways.” (Ossorio, 2006, p. 3) Like competence with our native language, we develop this core competence naturally in the course of growing from infant to adult, and are reliably fluent in its exercise. In other words, with the exception of the developmentally-challenged, we are all competent enough to fare reasonably well as a person in our world of persons and their ways.

But suppose we are not satisfied with being “competent enough” to get by. What if we want to take our competence as persons to extraordinary levels? Is it possible to become an ordinary magician in dealing with our life and people?

Yes. Like any competence, our competence as persons can be taken to levels that look to the rest of us like magic. Because this competence is typically invisible to us, we may not have noticed the magicians among us; their accomplishment is not played out on a public stage like musicians, athletes and other performers. But they are ordinary magicians nonetheless. Consider:

- A well-respected political leader, “Charlie” has developed an extraordinary ability to read and react to groups. I once saw him walk into a room full of strangers at a conference coffee break, look around genially and immediately walk over to and greet the true power figure in the room—not the distinguished-looking executive surrounded by a coterie in the middle of the room, but an unassuming looking fellow standing by himself along one wall. Afterward Charlie reconstructed for me the non-verbal signs he read that told him who had the real power in the room.

Turns out it wasn't a guess or intuition, but it also hadn't been visible to me at the time. (Charlie is a real person by the way, with real accomplishments; in respect for the privacy of people who are not already public figures, I have changed some names, including his.)

- “Anne” has been called a “magician” many times by her peers because of her competence at building high-quality business relationships. She routinely and consistently is invited for that all-important second business meeting with top executives, and it rarely takes more than three meetings before they ask for her firm's help with an important matter. This in an industry where fewer than 15% of first meetings ever lead to a proposal, let alone a contract.
- The renowned hypnotist and therapist Milton Erickson was able to vary the pace and pitch of his voice in conversation to send powerful and very specific messages to the subconscious of his client. This resulted in significant behavioral changes by the client—but listeners heard nothing but simple conversation. Erickson once demonstrated this technique by deeply hypnotizing one specific, unsuspecting member of a large medical audience who, like the others, was merely listening to the lecture.

Some people have an extraordinary ability to “calm the troubled waters”; simply by how they carry themselves, they are able to seemingly drain anger and tension out of difficult situations. Most of us know at least one person of whom we might say, “He never meets a stranger”, whose cordial and engaging manner quickly leads to friendly exchange and genuine good will with virtually anyone on first meeting. And some people have an unshakable knack for remaining steady and cheerful no matter what life throws at them; they treat negative experiences and emotions as simply a part of living, accept and deal with them as they arise, and then move on. We shall meet one such individual later in this paper. Ordinary situations; extraordinary results; ordinary magic.

How do we get there? Perhaps we should talk with these ordinary magicians, find out how they do it and copy their methods in our own lives. This has been tried on many occasions, but it has proven considerably less useful than we might hope for, for two reasons:

- Core competence, as noted before, is invisible. Our ordinary magicians frequently are not aware that their competence is in any way extraordinary. They assume that everyone can do what they do, and if they have noticed their difference, they are puzzled about why everyone can't do what is so obvious and simple to them.
- Those who have tried to figure out “how they do it” invariably tell us their methods as they see them. Even if they are good at describing methods—which is a different competence, at which they likely are no better than ordinary—what they describe is what *they* do, and that depends greatly on their particular personal characteristics, many of which we do not share. Thus, what works reliably for them is highly unlikely to work as reliably—if at all—for us.

Obviously there is a missing piece here. We need something that will enable us to make the invisible (our competence at being persons in a world of persons and their ways) *visible*, and therefore describable. In addition, we need something that can help us sort what we see into the specifically personal on the one hand, and the reliably common on the other. Given both of these, we can discern how to develop this core competence to higher, perhaps even extraordinary levels.

Fortunately, we have that missing piece. It is called Descriptive Psychology, and for over forty years it has served reliably as the foundation for creating ordinary magic.

What is Descriptive Psychology?

Descriptive Psychology is a practical and intellectual discipline founded by Dr. Peter G. Ossorio, who laid its conceptual foundations

in a series of books, papers and seminars beginning in the 1960's. (A complete list of Ossorio's sole-authored publications can be found at www.sdp.org/sdp/papers/PGO_Sole_Authored_Publications.pdf) He taught, trained and mentored a core of practitioners of Descriptive Psychology, who along with Ossorio have extended the discipline into virtually every aspect of persons and their worlds.

But all that is just history. What is Descriptive Psychology, really? Descriptive Psychology is a complex conceptual framework which articulates—makes clear and visible—the competence of persons living as persons, in a world of persons and their ways. As we shall see, having said that we have said a great deal indeed. (And having said that, henceforth we shall adopt a shorthand notation: We shall use “the competence of persons” in place of the longer, more exact “the competence of persons living as persons, in a world of persons and their ways.”)

Ossorio took as his foundation the undeniable competence of persons as persons. That competence importantly includes competence in using a set of interrelated concepts: behavior, person, language, and world. Ossorio set out to articulate these concepts and their interconnections in sufficient detail to enable making that invisible competence visible, thus describable and potentially the proper subject of scientific inquiry.

Rather than elaborate that conceptual system at this point, which is a long, complex and difficult task that Ossorio (2006) himself has accomplished in his *The Behavior of Persons*, we shall for now take Descriptive Psychology as given, the missing piece we need to make it possible to develop ordinary competence to extraordinary levels. As we go along, we will bring in those aspects of Descriptive Psychology we need for the task at hand; eventually, we can bring it all into the picture.

By now it should be obvious that the scope of this topic—ordinary magic, and how to become an ordinary magician—is more properly suited to a book than a single paper. Accordingly, today we must carve off a few juicy pieces for an in-depth look, which are meant to illustrate both the approach and its efficacy. Specifically,

we shall look at three arenas for ordinary magic: performance, relationships and living. Some parts of Descriptive Psychology will be brought in and illuminated, as needed. And since we require a more visible arena in which to highlight some aspects of competence, we shall also, along the way, spend some time together contemplating ordinary magic in the game of golf. My apologies in advance to those who, inexplicably, find golf uninteresting. Kindly bear with us.

Performance Magic

The Professional Golfers Association for some time has run a series of amusing ads in which a touring member of the PGA nonchalantly performs some ridiculously difficult golf feat, capped with the slogan, “These guys are good.” In truth, it’s an understatement; as millions of golfers can attest, these guys are extraordinary. They do nothing that a duffer doesn’t do—they just do everything so much more competently that they might as well be playing a different game. Since their performance is so visible, and so extraordinary, it can serve as a springboard to understanding what is required to take any competence to a very high level.

To hit a golf shot all you need is a ball, a club, and somewhere to aim your shot. You grip the club, address the ball (“Hello, ball”), swing the club and hit the shot; the ball goes somewhere and lands. For the millions of everyday golfers that’s literally all there is to it.

Perhaps surprisingly, PGA golfers do much the same thing. Granted, they make better choices than we do regarding which club to use, based on better information than we have on how far they need to hit the ball, and their ball usually lands quite a bit closer to where they aimed than ours do. But they also do something that the rest of us simply have no clue about: they choose what shot to hit, and adjust their swing to hit it.

Tune into any golf broadcast and you will hear announcers (themselves former PGA players) say things like: “Looks like he’s setting up for a high, hard fade into the green.” “He hit a draw around the dog-leg ... a high pitch with backspin ... a nasty low

stinger ... a soft flop out of the bunker ...” They are describing the specific shots they see, that is, the specific path of the ball when struck and what happens when it lands. The announcers share a set of distinctions—concepts, if you will—by which they can accurately describe a shot and distinguish it from others. They have words or phrases to use in making these distinctions. And—most important—these concepts and locutions refer to actual shots that are routinely and consistently made by PGA golfers. (Contrast this with: My friend Wil has devised a splendid golf shot called the “Comeback”. It looks like an ordinary shot until, in mid-air, the ball reverses course, comes back about 30 yards, and lands without rolling. A very useful shot indeed, but, as his friend Gil points out, nobody—not even Tiger Woods!—can actually make that shot.)

These PGA announcers illustrate what is needed to make competence visible, thus describable and available for discussion (“He didn’t hit a draw—he was trying a straight-on shot and just hooked it.”) Descriptive Psychology neatly summarizes this in its formulation of verbal behavior:

$$VB = \langle C, L, B \rangle$$

That is, verbal behavior consists of concepts, locutions and behaviors—the distinctions we make, the words or phrases we use in making those distinctions, and the behaviors of actually doing what we are say is done. (Remember the “Comeback”—C and L, yes, but no B, and therefore no actual shot we could describe.)

Hold on now, because we’re about to make a big step. This verbal behavior formulation of Descriptive Psychology is the essential key to making visible our core competence as persons. Just as most golfers just hit their shot and have no concept (let alone mastery) of the possible shots available, so too do most people, in their day-to-day lives, do what they do with very little concept (and therefore very little mastery) of the possible behaviors available. And the remedy is the same in both golf and in life:

- articulate concepts to distinguish behaviors,

- develop shared locutions for describing what you see using these concepts, and
- learn to recognize instances of the behavior when you see it.

Descriptive Psychology has already done the work of articulating the concepts needed to distinguish behaviors, along with the locutions needed and what it takes to recognize instances. These locutions are not technical or theoretical terms; they are drawn from ordinary usage of our common language.

This is how we make our invisible competence visible. But the true payoff for our efforts is not just that we can accurately observe and describe what people do (including ourselves). Once visible, we can learn to increase our competence to a considerably higher level. To see how, let's go back to golf.

When the LPGA announcer tells us that Lorena Ochoa hit a perfect high draw, she's simply describing the shot Lorena hit. This is a crucial point. The real importance of knowing the shots in golf is not so an announcer can describe them; it's so the golfer can hit them. Lorena Ochoa considers where her ball is lying, where the hole is located, how far she is from the hole, the wind conditions and temperature, what distance she can comfortably count on with her available clubs, and then *chooses her shot*. Her club choice, her grip and stance, how she addresses the ball ("Hola, pelota!") and how she swings the club are all specifically done in order to hit the specific shot she has chosen. That high draw was the shot she chose and the shot she was making; she hit the high draw with a specific trajectory and speed designed to put the ball where she intends it to go. If she did not know about high draws, and did not have that shot in her repertoire, she literally could not have made it except by sheer chance.

That is the pay-off for articulating behavior and practicing it: You have that behavior available when you need it. As it turns out, the behaviors that are in fact available at any given time in virtually any aspect of living as a person are significantly greater than the behaviors most of us actually do. If you don't know about draws and

fades, you just pick up the club and swing. That will get you around the course, but won't win many club tournaments.

By now it should be clear that increasing our competence as persons requires deeper and more articulated concepts of behavior to make the competence visible; these are provided by Descriptive Psychology. But what about that second issue we ran into before: sorting the specifically personal in performance from the reliably common? This is where some of the more technical contributions of Descriptive Psychology make the crucial difference. Let's explore how.

Here we are on the eleventh tee. Clearly the best shot is a hard fade, between 250-300 yards, and fortunately every golfer on the PGA tour has that shot. So we are about to see a series of really similar swings, right? If you believe that, you *really* don't know golf. Except for the occasional butchered shot that reminds everyone how hard golf really is, we are about to see a series of shots that land in remarkably similar places, the trajectories will be similar with interesting variations, and the swings—ah, the swings!—will be amazingly different. Some golfers' swings are so smooth and easy that the common response is "Butter!" Some swing with almost robotic efficiency; some strike the ball as if it had just insulted their mother. Compare swings on the slow motion swing-cam and you will find that no two golfers swing the club the same way—nor should they. Every excellent golf swing is the result of many factors which are personal and specific to the individual.

But they all, reliably, achieve the same result, and it's the result, not the specific procedure for getting it, that matters. The same is true—fortunately!—of what we do while living our lives as persons. Increasing our competence is a matter of increasing our awareness of what we can and want to achieve in any given situation, and developing our own, personally specific ways of achieving them. In other words, we need easy ways of describing our behavioral options—our "shots" in life, if you will—that let us see both what we might achieve and what we need to do to achieve it: the reliably common, and the personally specific, respectively.

Let's now look in some detail at how Descriptive Psychology helps us with this.

Intentional Action

When we describe a golf swing, we observe and describe a number of different aspects: grip, stance, take-away, pivot, follow-through, velocity, etc. Think of these as parameters of the golf swing. Every actual swing has a particular grip, etc. and describing the swing in terms of these parameters gives us a complete description of the swing. These parameters are also useful in comparing swings because they delineate the ways in which two swings can be similar or different.

The same is true of human behavior in general. When we describe behavior, we observe and describe parameters of action, and those parameters enable us to specify precisely what the action was, as well as how it is similar to or different from another action.

Descriptive Psychology provides a detailed articulation of the parameters of action, called the Intentional Action paradigm:

$$IA = \langle I, W, K, KH, P, A, PC, S \rangle$$

where

- I = Identity
- W = Want
- K = Know
- KH = Know How
- P = Performance
- A = Achievement
- PC = Personal Characteristic
- S = Significance

The Intentional Action paradigm has been articulated, elaborated and used by Ossorio and his colleagues over the past 40+ years. A detailed substantive account can be found in the third chapter of Ossorio's *The Behavior of Persons* (2006, pp.45-52).

For now, let's take a quick look at four parameters: P, A, S and PC.

Performance is the observable aspect of action, what we could reliably see and hear from a good videotape. "P" is what the person does as a means to "A", the Achievement, which is the actual outcome of the action (and typically the intended outcome as well.) By the way, in much contemporary behavioral science "P" is taken to be all there is to be known about the action, which partially explains the current sad state of contemporary behavioral science.

"A" gives us access to the reliably common aspects of behavior. Using a form of behavior description known as the Achievement Description (Ossorio, 2006), we can pass on specifying all parameters except A—thus, we include any action that has this Achievement as its outcome, regardless of who did it, why they did it or how. Achievement descriptions are central to developing competence to a high level, since they both specify what we need to accomplish and give us something against which we can assess actual outcomes.

"P" gives us access to the personally specific: It is what this person does, in these circumstances, to achieve "A". "P" is conceptually and practically connected to the person's Personal Characteristics (PC). Just as a person's height, weight, strength, flexibility and so on enter into how they swing a golf club, a person's attitudes, skills, knowledge, status and so on enter into their specific performance. And of course these Personal Characteristics must be taken into account in developing competence of any sort.

"S" enables us to do justice to the often complex nature of Intentional Action. P, the observable performance, is typically a means to accomplishing some end, A, that is not always immediately obvious. When we observe an action, it is frequently reasonable to ask, "What is she doing by doing that?" Our answer to that question is what we take to be the action's Significance. This can be a straightforward "means-end" relationship; for example, buying my wife flowers on her birthday is a commonly understood means of showing that I care (and that I remembered!) Showing that I care is

the Significance of buying the flowers. And since behavior typically occurs in the context of a larger pattern known as a Social Practice the behavior can be seen as participating in this larger practice in one of the ways available to me.

Here's an example of the complex nature of behavior reflected in the Significance parameter. I walk over and take a drink of water—that's my observable Performance. If you notice that it was Carolyn's glass I drank from, you might describe my behavior conservatively as "intruding on Carolyn's personal space." (This is an example of the Descriptive Psychology form of behavior description known as an Activity Description, in which we describe what we saw but with no commitment regarding "W", the Want parameter.) Some of you may have seen Carolyn snatch the last danish at the breakfast buffet this morning just as I was reaching for it; knowing that you might describe what I was doing as "getting even with Carolyn" (thus providing the "W" we chose to leave out in the Activity Description.) Since it's widely known that Carolyn and I have been close friends since we were teenagers, you could reasonably take it that what I was doing was playfully teasing my friend, instead of, say, making a hostile and provocative gesture. Finally, should you ask me what I was doing, I would say: "I was illustrating a point about the everyday complexity of behavior. All the rest of this was just my particular way of doing that in these circumstances."

Notice that none of you had any difficulty following this explanation, and most of you saw what was going on as it was happening—at a glance, as it were. As noted before, we are all highly competent as persons in this world of persons and their ways, and while we may not typically describe things in terms of performance and achievement and significance, we all routinely and competently act on these distinctions. If this is an example of everyday competence as persons, what would extraordinary competence look like? Let's conclude this section on Performance Magic by taking a detailed look at one such example.

Performance Magic in Marketing

It has been my privilege over the past 20+ years to help hundreds of professionals and small business owners become highly effective marketers of their own services. Marketing is one of the more important and difficult tasks for business owners, particularly in service businesses, and it calls on significant portions of our invisible competence. The first step in improving that competence, of course, is to make it visible, and that requires some Descriptive Psychology to bring it off.

Consider the common question we all encounter from time to time: “What do you do?” We have our characteristic ways of responding, and we usually don’t give it much thought. No worries; we all know how to do this. In that way, we are like the weekend golfer who picks a club, takes a swing and hits the ball. But people who want to be effective at marketing can’t afford to just “take a swing” at that question. I call “What do you do?” the marketer’s “moment of truth” because how you respond makes a huge difference in how effective you are in marketing.

Here’s why. “What do you do?” is the first step in a significant pattern of behavior called a “Social Practice”. A Social Practice consists of a set of linked actions typically involving two or more people. One person acts, the next person acts in response, and the back and forth continues until the Social Practice is played out. On reflection you will notice that virtually every action you see in real life takes place as part of a Social Practice; our invisible competence as persons is essentially exercised in Social Practices. (For more on Social Practices—and there is a lot more to be usefully known—see Putman (1990) and Ossorio (2006, pp. 170-183.))

But our competence is a great deal more than knowing how to do our part; it also includes recognizing what’s going on and what our options are. We aren’t given a script before we walk in that tells us what the social practice is and what our part will be. In fact, we *actively make it up as we go along*—and that’s where conscious competence can make a huge difference. (This is another recognition

that sharply distinguishes Descriptive Psychology from the social-deterministic approach typical of current psychological theory.)

“What do you do?” is an initiating action—call it Move 1—which calls for a response. But what response? As it turns out, that depends on what social practice we are engaging in, and *that* is essentially determined *by* the response! In other words, our choice of Move 2 is largely determined by what we see as going on, but what is *actually* going on is largely determined by our Move 2.

“What do you do?” can initiate quite a few different Social Practices. We can treat it as part of the practice of “making social small talk” or “impressing each other with our importance” or “exploring for mutual interests” or “selling my wares in the market.” Which practice you decide is going on guides you in what you do and what you will count as success.

Highly effective marketers treat “What do you do?” as a genuine inquiry and answer it clearly, authentically and in a way that engages the other person (without putting them on the spot!) Success with this Move 2 consists of sorting people into one of two groups: “That sounds interesting, tell me more” from people who might in fact need and get good value from your services, or “Interesting! So, how about those Cubs?” from people who are not good candidates for your service—and the sort is accurate.

This marketing Move 2 defines your shot, as it were: It is clear what your action must accomplish. Very few people already have that shot in their repertoire, but they can get it with proper coaching and practice.

As a coach, when I listen carefully to my client’s “moment of truth” response I hear those places where the voice loses confidence, or goes flat because they are saying what they think they should say instead of what is real for them. I won’t bore you with the details; suffice it to say that we work on those places to fix whatever is fuzzy or inauthentic or off the mark. We go through as many iterations as we need, and sometimes it takes a few sessions to get there. But eventually when they say what they do, they light up with excitement: ‘That’s it! That’s exactly what I do!’

And very soon their business begins to grow—almost like magic.

Let us now turn to another arena in which ordinary competence can become ordinary magic: relationships among people.

Relationship Magic

Can you bear just a little more golf? I promise you, it's worth it.

Tiger Woods is widely acknowledged as one of the greatest putters ever to play golf. He routinely sinks a few “impossible” putts in every tournament. Even more impressive, when putting within 9 feet he misses about one putt in sixty. He does miss—he's an *ordinary* magician, after all—but his putting competence is clearly extraordinary.

It is also instructive, and not just for golfers, because his putting magic consists of two distinct yet related competences: striking the ball, and reading the green. A quick look at each of these, perhaps surprisingly, yields some useful insight into something of interest to all of us: developing our competence in human relationships.

Tiger has spent countless hours practicing and refining his putting stroke, and it's a thing of beauty. He uses an old-fashioned “flat stick” putter with the classic overlapping grip. His head and hands are absolutely still. Only his shoulders move, in a precise pendulum swing, and when he strikes the ball it immediately begins to roll with no skip or skid, just significant forward spin to keep it on course. (Forgive me if I have gone a bit overboard on this description; you really have to have tried putting to appreciate just how extraordinary Tiger's stroke is.) But all of this is just performance. It would matter not at all except for the fact that this is Tiger's way of accomplishing a simple and very specific end: to make sure that when he strikes the ball, it goes precisely where he is aiming it, and at exactly the pace he intends.

By the way, Tiger is not the only great putter in golf. There are others who can equally reliably hit the ball so that it goes precisely where they are aiming it, and at exactly the pace they intend. But,

as with golf swings, so with putting strokes: They are all different. Some use long “belly” putters, some use putters with heads the size of bricks, some use a “claw” grip to keep their right hand still. What they have in common with Tiger is just one thing, and it’s the only thing that matters: Their putt goes precisely where they are aiming it, and at exactly the pace they intend.

Let’s pause to extract an insight here. Relationship magicians, like great putters, all have their own precise and specific ways of acting to create and act on relationships. What one relationship magician says and does may well be quite different from what another says and does. If you recorded them in action and compared, you might see very little in common. But again, that’s just performance. What they actually have in common is this: What they say and do creates precisely the relationship they intend to create, at exactly the intensity they are aiming for. (That last sentence opens a long and substantive conversation to which we will return a bit later.)

So far this is just performance magic revisited. But we’re on new ground—forgive the pun—when we look at the other part of putting: “reading the green”.

To putt the ball precisely where you are aiming it, and at exactly the pace you intend, you first have to decide where to aim, and at what pace, to sink this putt. Tiger does that by reading the green. To observers it looks like an arcane ritual; he stands well behind the ball, facing the hole, and peers intently at the ground; then he walks all the way around behind the hole and peers through the hole to the ball. Some golfers hold their putter before them at arms length like a plumb-bob; one exceptionally flexible young pro drops into a lizard-like pose and sites along the green with his eye a few inches from the ground. All are attempting to read the green, i.e. figure out how much and in what direction their ball will break (deviate from a straight line) once it starts rolling, and how fast it will travel. Both are crucial. Some putts are “straight in” while others break so severely they must start out perpendicular to the straight line between ball and hole. Some short uphill putts must be struck very firmly while some long putts must be barely tapped before the slope

of the green takes over. And experience matters here; some greens are very hard to read, and anyone who has putted this hole before has a potential advantage by remembering how to compensate.

Reading the green is far more difficult than putting the ball. We can easily construct a putting machine that will reliably strike the ball so that it goes precisely where we are aiming it, and at exactly the pace we intend. Nobody has even a clue how to construct a machine that can reliably read a green well enough to tell us where to aim and at what pace.

The same is true of human relationships: the hardest part by far is “reading the green”. Relationship magicians are highly adept at discerning what their existing relationship is with this individual, what relationship they intend to have, which next actions move the relationship in the intended direction, and at what pace they can safely proceed without triggering backlash or resistance.

All of this and more is spelled out in practical detail in Descriptive Psychology’s articulation of relationships, relationship change, and the communities and cultures within which they take place. Even a basic articulation of this topic would require several hours; actually raising one’s competence to an extraordinary level is a matter of study, coaching and practice over at an extended period. For now, we must be content with looking at a few aspects of relationships that point the way toward developing extraordinary competence.

Relationships are not written into the fabric of the universe. Relationships are built, sustained and changed through the everyday process of action and interaction. I do or say something, you do or say something in response, and after a very few moves of this sort we have a relationship that both of us are competent to navigate—even if we began as total strangers. Once established, the relationship sets boundaries regarding what behaviors are called for, permitted, or out-of-bounds, and we act accordingly. This all occurs almost automatically; like breathing or walking, we do it competently without thinking about it and we might in fact have some difficulty

giving an account of what we were doing and why. This is yet another instance of our invisible competence.

But just because building and acting on relationships typically occurs without deliberation doesn't mean it must. Not surprisingly, the key to increasing relationship competence is to make that invisible competence visible. In doing so we must articulate:

- where the relationship begins,
- what we want the relationship to be, and
- what we do to build the intended relationship.

Where the relationship begins

Every relationship takes place within the context of a community. Accordingly, our first task is to discern what the community is, and what our respective places are within that community. The community in a business organization is significantly different from the “two-person community” in psychotherapy, and both are quite different from the social community of New York theatergoers. Further, if our context is a business organization, it matters a great deal that you are the CEO and I am a prospective service provider, or that you are a systems analyst and I am a loan officer whose work depends on your software. And clearly it matters which of us is the therapist and which the client.

This is rarely a source of confusion. We typically know where we are and who we are, and unless this is our first rodeo, so to speak, we know how to act and we do well enough to get by. But relationship magicians do much more than just get by. They build powerful relationships from their first move.

To begin with, relationship magicians recognize that relationships almost never begin as a truly blank slate. Within a given community, any two places within that community define a specific relationship, and members of the community have a shared understanding of what that relationship is and what actions are congruent with it. Following Ossorio's lead in articulating culture without stereotyping (Ossorio, 1983), we can call this shared understanding the Standard Normal

Relationship, and remind ourselves that this does *not* take the form of a list of expected or disallowed behaviors. Instead, it takes the form of competence in recognizing congruence between behaviors and relationship. This would be (and for computer simulations, is) a tremendously daunting task except for one fact: We all do it all the time. People are, metaphorically, relationship supercomputers, and generally have little trouble sorting these matters out.

The first key to building a powerful relationship is to ensure that your initial moves are congruent with the Standard Normal Relationship you find yourself in. This affirms and strengthens the relationship. Of course, like the golf pro reading a green on her home course, experience gives you an advantage. Your behavioral choices will be more precise the more you know about the community and the individual with whom you are interacting.

But relationship magicians know that their initial moves must also serve another purpose: to move the relationship from where it starts—the Standard Normal Relationship—to where they intend it to be. To do this accurately and efficiently, they need something we generally don't have and can do without: a detailed relationship description.

What we want the relationship to be

In day-to-day relationships most of us are like the weekend golfer in that we don't need, and probably couldn't use, the highly technical stuff about swing and shots that are the stock-in-trade of golf pros. Our common language used to communicate about relationships consists of a very few words or phrases that mostly point to important ways relationships can go wrong, and that's enough for us most of the time. But when we decide to take our relationship competence to higher levels, we require more exact language for describing relationships: We require relationship descriptions.

A relationship description is a small set of specific ordinary language sentences that allows us to define the complete core of a relationship. It defines the essence of what the people in the relationship expect and even require of each other, and serves as

both a standard for assessing where we currently stand, and a reality check on what we need to do next.

Descriptive Psychologists for many years have used relationship descriptions to elevate relationship competence in a number of contexts. Ray Bergner (2006), in his book *Status Dynamics: Creating New Paths to Therapeutic Change*, articulates in specific detail the therapeutic relationship required to support clients in re-constructing their worlds. That is relationship magic, indeed. Joe Jeffrey (Jeffrey & Putman, 1994) teaches his system analysis students to use relationship descriptions in creating system specifications and requirements. In my own work with professional service businesses, I have used relationship descriptions to create highly specific targets for the marketing efforts of my clients. (See chapter 5 of *Marketing Your Services: A Step-by-Step Guide for Small Businesses and Professionals* (Putman, 1990) for a detailed method of creating relationship descriptions.)

Relationship magicians work from relationship descriptions of the Standard Normal Relationship along with a very specific relationship description of the intended relationship. They then act from the beginning to build the intended relationship. Let us conclude this section with a quick look at how they do that.

What do we do to build the intended relationship?

Peter Ossorio articulated two simple but very powerful aspects of relationships: the Relationship Formula, and the Relationship Change Formula. You can find the complete and technically exact statement of these two formulas on pages 230-241 of Ossorio's (2006) magnum opus, *The Behavior of Persons*. Taken together they provide the framework for relationship magic.

The Relationship Formula essentially says that my behavior toward you will be an expression of my relationship with you. Of course there are never any iron-clad guarantees here. It's possible that I may have misread the relationship, or not have the skill to act on it successfully, or I may have some other more important priority

right now, but very typically the Relationship Formula describes quite exactly what happens.

The Relationship Change Formula says that if my behavior toward you is *not* an expression of our relationship, but rather is an expression of a *different* relationship, our actual relationship changes from what it *was* toward the *different* relationship. Again, I may be wrong about our relationship or act clumsily, or you may reject my move—relationship magic requires some skill and there are no iron-clad guarantees of success—but very often the Relationship Change Formula describes quite exactly what happens.

In summary: Relationship magicians develop high levels of competence in describing relationships, both initial and intended; they are skilled at affirming and strengthening relationships through congruent action; and they competently act in ways that change their relationship toward what is intended. Clearly, relationship magic requires some initial talent and substantial work to develop this competence, and few people will choose to make that effort. But just because of that, people who do make the effort have a tremendous advantage over those who don't in the relationship arena. Let's face it: The only way a weekend golfer will ever beat a golf pro is with a great day and a huge handicap. Golf allows for those big differences in competence; life doesn't. That's the difference between golf and life.

Living Magic

No more golf. Just living. Consider:

- Jack worked hard to earn promotion to his dream job. It came down to Jack and one other. When the decision was announced he was very disappointed to hear he was not the one chosen. I joined him for a drink after work, expecting to commiserate and lend a sympathetic ear; instead I found myself enjoying his obviously genuine good humor. I commented on his mood, and he said: “I really wanted that job—but I didn't get it. That door

is closed. But I know that whenever a door closes, another opens, and I'm eager to find out what that door is."

- Barry was invited to a meet-the-parents dinner at his soon-to-be in-law's house. His future mother-in-law had prepared a huge spread and as soon as he sat down she loaded his plate with brisket, chicken, dumplings, vegetables and salad. Barry gamely worked his way through every morsel, praising each dish extravagantly as his nervous bride-to-be beamed her approval. Having emptied his plate he courteously helped himself to another slice of brisket and some more potatoes. As he took his first bite of the brisket, his future mother-in-law frowned and said: "So—you didn't like the chicken."

For Jack the world is a place of constant opportunity, where you do your best, accept whatever happens and look for the door that is open. For Barry's mother-in-law, the world is a place where your best efforts are never good enough and they invariably lead to criticism and disappointment. The differences between how they see the world clearly make enormous differences in how they live their lives, and the satisfaction they derive from it. In fact, their differences are so great, and so significant, they might as well be living in different worlds.

Actually, they *are* living in different worlds. Literally. Descriptive Psychology's conceptualization of worlds makes clear how this is so, and helps us understand how a person's world can in fact change or be changed for the better. Competence in changing worlds is ordinary magic, indeed.

Peter Ossorio, in *The Behavior of Persons* (2006), distinguishes between two types of worlds: the Observer's world, which is the public world we all share and which we know by observation and participation, and the Actor's world, which takes the form of a dramaturgical pattern we essentially create as we go along. The difference between the two is both subtle and profound, and is well illustrated by one of Ossorio's classic images briefly retold here:

The Picture of Winston Churchill

Wil hands Gil a picture and asks: “What is this?”

Gil takes one look and says: “That’s a picture of Winston Churchill.”

Wil: “Hold on a minute. How do you know that’s not a picture of someone else who looks a lot like Winston Churchill?”

Gil: “You got me there. I can’t be sure it’s Winston Churchill.” Then Gil picks up a pencil and draws something on the paper. He hands it to Wil and says: “That’s a picture of Winston Churchill.”

Wil: “Hold on. How can you be sure that’s not a picture of someone else who just looks like Winston Churchill?”

Gil: “I’m sure it’s a picture of Winston Churchill because I produced it, and that’s what I produced it *as*.”

The Observer’s world is what we see around us. The Actor’s world we create as we go along, and it *is* essentially what we produce it as. Becoming consciously aware of how we are producing our own world, and intentional about what we produce, is the key to producing ordinary magic in our own lives.

Of course we usually do not see ourselves as creating our own world—yet another aspect of our competence that is invisible to us—and we must be very careful here because the potential for vanishing into mumbo-jumbo is very real. A well-known saying captures both the actual potential and the traps: *The world is as you see it*.

It’s easy to dismiss this saying as either a trivial reminder that we know the world through observation, or as a weak-minded attempt to paint the world in your preferred colors. In fact, when your only concept of “the world” is the Observer’s world, it’s hard to see any sense here at all. When we recognize that the saying refers to the

Actor's world, we can see it as providing a guideline for how our world can change, and for the better. (This is yet another instance of Descriptive Psychology's conceptual articulation making competence available to us that we just don't have without it.)

Note what this does not say. It does not say that the world is as you say it is, or believe it is, or want it to be, or intend it to be, or affirm it to be. It's not a mere matter of knowledge or intention; it's a matter of behavior. The world you *see* is the world within which you act, and paradigmatically, in which you succeed. To paraphrase Yoda: "Not try. Do."

Discerning what your world is, and discovering how to change it, is a profound undertaking, not to taken lightly or done easily. But it can be done; it has been done, and the means for getting there are known. Let's explore a bit further this most profound ordinary magic.

The late Randy Pausch, whose "Last Lecture" moved and inspired millions, provides an interesting case in point (Pausch and Zaslow, 2008). A vigorous 47-year-old professor of computing science, happily married and the father of three young children, Pausch was diagnosed with terminal pancreatic cancer. He delivered his "last lecture" ostensibly to the Carnegie-Mellon academic community, but actually as a legacy to his children. In it he describes his world in ways which many have found inspirational. We may find it instructive.

Pausch acknowledged the pain and difficulty he faced in coming to terms with his imminent and untimely death. But he insisted that he was in fact a happy man, full of enthusiasm for living the life that remained to him, and he appears to have been telling the truth, according to those who knew him then and in his last days. His world, clearly, was a place where opportunities for happiness constantly present themselves, and he embraced them enthusiastically. How could this be? And how can one change one's own world to be more like his?

Pausch himself accounted for his world as the result of a choice made early in life. Drawing on his early reading of *Winnie-the-Pooh*,

he said that he noticed that in life you could either be an Eeyore or a Tigger—and he chose to be an enthusiastic, energetic Tigger, a choice he affirmed for the rest of his life. (His parents confirm Randy’s early Tiggerishness.) It’s as simple as that—Eeyore or Tigger. Choose.

This account is persuasive to many; some people who were depressed and even considering suicide wrote Pausch to say that his example inspired them to embrace life. But his account is flatly unpersuasive to others, who say no choice was involved. They insist that Pausch’s genetic inheritance and early life experience made him a Tigger, just as theirs made them decidedly not. You are what you are, the critics say, and there’s not much you can do about it.

So who’s right: Pausch, who says you choose your world, or his critics who say you can’t? I suggest that both are right, and neither is right. The actual story is more complex than either account. It both allows for and constrains ordinary magic in living. Let’s dig a bit deeper.

Possible, Actually Possible, and Real

Ossorio observed that the real world divides into facts, not things (an observation he shared with Wittgenstein and several other philosophers.) The real world consists of all facts and all possible facts. Thus, as observers and critics our accounts rely both on what actually happens and what could have happened but did not. Often, like the dog who did *not* bark in the famous Sherlock Holmes story, the significance of what took place may be seen more in what did not happen but could have.

As Actors navigating our world, we continuously determine what we will pay attention to and how we will cast our drama. Every situation presents both opportunities and obstacles to action. What we see depends on the place we currently occupy in the community in which we are acting, what we want, what we know how to recognize, and our habits (Significance, Want, Know and Personal Characteristics parameters of Intentional Action, respectively). Each of these is a potentially fruitful avenue for changing how we

create our world. We can act from a different status or community, acquire or lose reasons for acting that change what we want, learn to recognize new opportunities or obstacles, or notice our habitual patterns and actively seek to change them. But our behavior and world construction also depend on another, less obvious but nonetheless powerful factor: we act on what is real to us. Changing what is real to us is perhaps the most direct and powerful means of actually changing our world.

“Real” in this instance contrasts with “true”. Whether a fact is true is a directly part of the Observer/Critic world, a matter open to negotiation and resolution. It’s either true or not, and we have serviceable ways of working out which it is (of course sometimes we don’t know enough to be sure in a given case, and our Observer/Critic practices allow for that.) “Real” as used here is part of the Actor’s world, and contrasts with “merely possible” and “actually possible”. Ossorio’s “4 Bridges” heuristic (*The Behavior of Persons*, pp. 266-267) succinctly demonstrates these issues. Essentially, he points out that if you have had the unfortunate experience of having three bridges in a row collapse just as you are reaching the other side, no amount of statistical evidence or engineering analysis will convince you that bridges are safe. You are likely to say, “That may be true, but the bridges I cross over are dangerous.” Likewise, if whenever you go for a walk on a mountain trail you are actively afraid of being mauled by a bear, statistics that show this happens perhaps twice a year worldwide are unlikely to help. Again, “That may be true, but for me the fear is real.”

With the bear example we can gain some ground in understanding how the Observer’s world links to the Actor’s world, and thus how we might change our worlds. “Bear attack on the trail” is a possible fact, and for most of us that’s what it remains: merely possible. That is, if we thought about it at all we would acknowledge that, yes, that could happen, but it never actually enters into our behavioral choices. We literally don’t give it a thought. Suppose, however, you see a video of such an attack, or you know someone who was attacked by a bear. In other words, it moves from something

you have merely heard or thought about to something you have in some way observed. This can result in a change in your world. “Bear attack” may well become an *actual* possibility for you, one that you take actively into account in appropriate circumstances. And if the experience was particularly strong—say, you yourself barely avoided a bear attack, or when you observed the attack you felt almost as if it were happening to you—it may become *real* for you, that is, something that in relevant circumstances is automatically part of what you consider, with the directness we associate with emotions and feelings: “It feels real to me!”

(Lest we get stuck on attacking-bears here, recognize that what has been said could as easily apply to rape, assault, being mugged, having your laptop stolen, having your home invaded, etc. And lest we get stuck on issues of danger, recognize that what has been said also applies to making a successful public speech, falling in love with someone who loves you, experiencing ecstatic bliss, or any other state-of-affairs which you have heard about but never before experienced. Merely possible facts become actually possible or real when they become in some way part of your actual life.)

Now let’s loop back to Randy Pausch. Did he actually *choose* to be a Tigger? Of course he did. But in order to do so, Tigger had to be an actual possibility in his world, that is, he had to have *experienced* approaching life with enthusiasm and energy so that he could chose to do it again. And from there it was a matter of developing Tiggerishness as a habit, choosing it routinely and consistently long enough that it became real for him, an automatic part of what he considered in choosing what he paid attention to and in casting his drama.

But notice the part Randy’s essential capacity and learning history played here. Descriptive Psychologists understand essential capacity as providing boundaries on what a person can become, and learning history as required to turn capacity into an actual person characteristic. If you do not have the essential capacity, no amount of learning will result in skill at tensor calculus. Likewise, if you have never had the necessary learning experiences, the capacity to develop

trust in others will not develop into actual trust. Obviously, Randy had the capacity to become a Tigger. Equally obviously, he had learning experiences that turned that capacity into actuality. It seems that many people lack that essential capacity for enthusiasm and energy, or else—and I personally believe this to be far more likely—they have never had learning experiences that develop the capacity into actuality. In either case, they are not in a position to choose to be a Tigger; it's simply not real for them and they understandably might be skeptical about it being *really* real for anyone.

How, then, do we change our worlds and for the better? One way looks a lot like certain forms of therapy. Help people discern the parts of their world that are real but not true, and which restrict their ability to engage in their lives with satisfaction—the unsafe bridges and bear-attacks, if you will. This is a sound and useful approach.

But ordinary magicians in living take a different approach: from among the possible facts in this world, they choose those which are most personally desired because they create the greatest behavior potential. Then they set about finding life experiences that can make them actual possibilities, and with some habit-building work, real. How exactly this is done is well beyond the scope of this paper. We can conclude, however, with an exercise that illustrates some of the ground to cover.

First, a limbering-up exercise. Kindly bring your full attention to where you are and what you are doing. Take a deep breath or two and allow your awareness to simply be here in this room.

- Now, take a moment to look around and see what is in the room. Just *notice*; you don't need to *do* anything about it.
- OK, now take another deep breath, clear your mind and look around again, this time seeing everything in the room that uses electricity.
- Good, now one more time look around the room, this time seeing everything that is blue.

What did this little experiment bring to your attention? Some things stood out as you looked for electricity that you barely noticed

the first time around. Blue things just seemed to pop into existence when you were looking for them. This is a very simple reminder of something we all know: What you see depends on what you are looking for, that is, what you expect to see. And since what you are able to do, and are inclined to do is strongly connected to what you see around you, what you actually expect to see in the world has a strong connection to what you do, and therefore to what satisfaction you can derive from your actions.

Our little experiment was meant to be a limbering-up exercise, a parlor trick if you will. Let's conclude this paper by raising the stakes just a bit to see how you can change how you see the world in a significant way.

Again, please take a couple of deep breaths, and allow your attention to be fully present in this room. Now, think of every person in your life who has done something for which you are grateful. Take your time, look around and look back in your life, and become aware of everyone who has done something for which you are grateful.

- Now, pick one such person to focus on.
- Focus your attention on that person.
- Remind yourself in specific detail what they did that you are grateful for.
- As you recall what they did, allow gratitude to arise within you. Don't force anything, just allow gratitude to be there.
- Become aware of what you are inclined to do.
- Now, notice: Your world right now is a world in which gratitude has a real place. Does this seem different from how you usually see the world? If so, how?

The world is as you see it. We are all competent at changing how we see our world, and Descriptive Psychology makes it possible for us to attain extraordinary competence in making our worlds rich and rewarding places. It's almost—but not quite—magic.

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Teaching Culturally Competent Psychotherapy: A Descriptive Psychology Approach

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Abstract

Providing training in cultural competence is an established and accepted professional standard in graduate programs in clinical psychology, but the implementation of this standard varies significantly in its methodology and effectiveness. This paper applies key relevant concepts and methodologies from the intellectual discipline of Descriptive Psychology (DP) to this meaningful pedagogical endeavor. It is based on courses actually taught by the author, and is not merely a proposed training model. DP concepts and perspectives were used to explicate the foundational notions related to cultural competence per se. Subsequently, particular DP concepts and strategies were employed to enhance the instructional methods for advancing culturally competent awareness, knowledge, and skills. These examples illustrate the compelling power and advantages of applying DP as a conceptual framework instead of as a theoretical orientation, particularly in multicultural psychology, to limit cultural insensitivity and ethnocentrism.

In our increasingly diversified world, the training of clinical psychology graduate students requires more than the traditional pedagogy of teaching foundational theories and skills. Rather, the training must integrate the acquisition of cultural competency

in order for clinicians to provide effective treatment to a growing diverse population. In this context, *cultural competence* refers to the practice of psychotherapy in ways that comprehensively attend to the various aspects of a person's identity, including but not limited to: the person's race, ethnicity, language, disability, religious/spiritual orientation, sexual orientation, gender, national origin, and socioeconomic status (American Psychological Association, 2003). Given the unlimited combination and complexity of these various aspects of a person's identity, the achievement of cultural competence is clearly aspirational, as a clinician cannot achieve ultimate cultural competence. As such, the fundamental pedagogical aim cannot be to train students to become proficient in cultural competence, but rather to establish the requisite foundation upon which cultural competence can begin and continue to develop throughout their careers.

As a comprehensive and systematic conceptual framework, the intellectual discipline of Descriptive Psychology (DP) provides concepts and perspectives that can explicate the various aspects of cultural competence per se, and offers pedagogical and practical strategies for its acquisition and development. DP has characteristics that render it especially useful and effective in the discipline of multicultural psychology. As a conceptual system, as opposed to a theory, DP articulates “the conceptual framework within which persons, behavior, language, communities, and the real world can be described and understood” (Ossorio, 2006, p. ix). Unlike a theory, DP aims to articulate the sense that persons and their worlds *already make to begin with*, as opposed to purporting an artificial construct in order to make sense of persons and their worlds. In principle, such a conceptual system is as free of cultural bias as is practically possible, and can be regarded as “culturally universal”. Accordingly, this paper will apply particular DP concepts and perspectives to the endeavor of training doctoral students in clinical psychology to begin developing their cultural competence.

This application will be illustrated through an actual case, rather than merely through a proposed hypothetical model. The author will describe his experience teaching courses in the Doctor

of Psychology (Psy.D.) clinical program at the University of Denver, Graduate School of Professional Psychology (GSPP), where he is the Director of Diversity and Multicultural Training and the Director of the Professional Psychology Clinic, which is the on-site training clinic. The curriculum of the Psy.D. program at GSPP includes a required four-course year-long sequence in multicultural psychology. Specifically, the courses are entitled “Racial/Ethnic Identity Development”, “The Social Psychology of Racism and Oppression”, “Gay, Lesbian, Bisexual, and Transgender (GLBT) Issues”, and “Culturally Competent Psychotherapy”. The author teaches the first and last of this course sequence.

This paper has the following structure. For the sake of elaborating on the meaning and implications of cultural competence, a set of guidelines are described. These guidelines, in turn, provide the pedagogical rationale for the four-course sequence on multicultural psychology. Subsequently, the majority of this chapter is comprised of an illustration of how the relevant DP concepts are applied to the curriculum of the two courses taught by the author. This chapter ends with a summary and conclusion.

Cultural Competence Guidelines

Sue & Sue (2008) operationalized cultural competence in terms of three central dimensions. The first dimension is *awareness*, wherein the culturally competent psychotherapist strives to become aware of one’s own assumptions, values, and biases. The second dimension is *understanding*, wherein the culturally competent psychotherapist strives to understand the worldview of culturally diverse clients. The final dimension is *skills*, wherein the culturally competent psychotherapist strives to develop appropriate intervention strategies and techniques. Within each dimension, there are several specific goals, as described below by Sue & Sue (p. 47).

Awareness

1. Moved from being culturally unaware to being aware and sensitive to own cultural heritage and to valuing and respecting differences.
2. Aware of own values and biases and of how they may affect diverse clients.
3. Comfortable with differences that exist between themselves and their clients in terms of race, gender, sexual orientation, and other sociodemographic variables. Differences are not seen as deviant.
4. Sensitive to circumstances (personal biases; stage of racial, gender, and sexual orientation identity; sociopolitical influences, etc.) that may dictate referral of clients to members of their own sociodemographic group or to different therapists in general.
5. Aware of their own racist, sexist, heterosexist, or other detrimental attitudes, beliefs, and feelings.

Knowledge

1. Knowledgeable and informed on a number of culturally diverse groups, especially groups therapists work with.
2. Knowledgeable about the sociopolitical system's operation in the United States with respect to its treatment of marginalized groups in society.
3. Possess specific knowledge and understanding of the generic characteristics of counseling and therapy.
4. Knowledgeable of institutional barriers that prevent some diverse clients from using mental health services.

Skills

1. Able to generate a wide variety of verbal and nonverbal helping responses.

2. Able to communicate (send and receive both verbal and nonverbal messages) accurately and appropriately.
3. Able to exercise institutional intervention skills on behalf of their client when appropriate.
4. Able to anticipate impact of their helping styles, and limitations they possess on culturally diverse clients.
5. Able to play helping roles characterized by an active systemic focus, which leads to environmental interventions. Not restricted by the conventional counselor/therapist mode of operation.

Pedagogical Rationale for Course Sequence

Racial/Ethnic Identity Development

Broadly speaking, this course addresses the dimensions of awareness and knowledge. The specific objectives of this course include increasing the students' awareness and sensitivity to their own cultural heritage, assumptions, values and biases (vis-à-vis understanding their own racial/ethnic identity and its development), and understanding the culturally different clients' worldview (vis-à-vis understanding their racial/ethnic identity and its development). This course specifically addresses most of the goals described above in the awareness and understanding dimensions.

The Social Psychology of Racism and Oppression

This course also addresses the awareness and knowledge dimensions, with an emphasis on the latter. Specifically, the primary course objective is to increase the students' knowledge of the systems of institutional oppression in the United States. Additionally, the course promotes the understanding of the institutional barriers that prevent some diverse clients from using mental health services. With respect to the awareness dimension, this course also aims to increase

the students' awareness of their own biased and racist attitudes and beliefs, and the related emotions.

Gay, Lesbian, Bisexual Transgender Issues

Unlike the three other courses, this course focuses on a specific population, namely sexual minorities. The other courses have a broader focus with respect to the four prominent racial groups in the United States—namely, African Americans, Asian Americans, Latinos/as, and American Indians. The objectives of this course include developing the understanding and awareness of GLBT issues, as well as improving self understanding and self awareness with respect to these communities.

Culturally Competent Psychotherapy

As described above, the preceding three courses focus on the awareness and knowledge dimensions of cultural competence. For this final course, the emphasis is on the third dimension of skills. This course aims to integrate and synthesize the awareness and knowledge that was taught in the prior courses with the skills required to effectively implement their acquired awareness and knowledge. The specific goals include developing the ability to generate a range of effective verbal and nonverbal responses and interventions, the ability to communicate effectively with a wide range of diverse populations, and the ability to anticipate the impact of their therapeutic style and understand its limitations across diverse groups.

Application of Descriptive Psychology Concepts and Strategies

Racial/Ethnic Identity Development

The guiding questions for this course are: (a) Who are we? and (b) How did we get that way? In this class, the following prominent racial/ethnic groups are examined: African Americans, Asian

Americans, Latinos/as, American Indians, White Americans, and multiracial Americans. To review, the course focuses on the awareness and knowledge dimensions of cultural competence by examining the models of racial/ethnic identity development of the groups described above, as well as by examining the students' own racial/ethnic identity and its development.

As the first course of the sequence, establishing a clear understanding of fundamental concepts is essential. The phenomenon of personal identity development can be understood according to the following logical progressive sequence: (a) understanding and describing persons per se, (b) understanding and describing personal development, and (c) understanding and describing persons in relationships. In turn, understanding each of these logical domains calls for an understanding of its constituent concepts. The following sections will specify and explicate these constituent concepts from a DP perspective.

Describing Persons

Person Concept

The question “Who are we?” refers to persons. Accordingly, since we are examining the development of persons (as opposed to something else), the concept of a person per se must first be clarified. Ossorio (2006) defined a *Person* as “an individual whose history is, paradigmatically, a history of *Deliberate Action* in a *Dramaturgical* pattern” (p. 69, italics added). The DP conception of Person is distinct from the conventional notion of a Person as strictly referring to a human being, or equivalently, an organism who is a member of the species *Homo Sapiens*. Instead, the DP conception is not constrained by what persons are “made of” or their “form”, but rather considers what persons “do” and the ways they “function”. This functionalist perspective allows us to regard other organisms that engage in *Deliberate Actions* as persons, thereby expanding the scientific utility of the concept of person. Colloquially, to engage

in *Deliberate Action* is to “know what you’re doing and to do it on purpose”, and therefore, behaviors of persons are purposeful and not merely random. *Dramaturgical* pattern refers to the natural coherence of the behavior of persons. That is, persons do not merely engage in a random and arbitrary series of Deliberate Actions. Rather, persons essentially engage in a cultural way of life, and their behaviors reflect their unique personal enactment of that way of life.

Paradigm Case Formulation

The complexity of persons, particularly from a multicultural perspective and the inherent cultural relativity, cannot be adequately understood through mere definitions of particular phenomenon and concepts. Constructing a definition generally involves examining and specifying the commonalities across a wide range of instances of a specified phenomenon. Consequently, this inductive process limits definitions by either being too broad as to be ultimately meaningless and imprecise, and/or being too narrow as to be limited in scope and utility. Furthermore, definitions are often bound by a particular cultural context. For instance, the definition of “family” in the United States typically refers to a nuclear family consisting of blood relatives. In contrast, the definition of “family” in collectivist cultures (both within and without the United States) typically includes members of the extended family network and individuals who may not be necessarily blood related.

A paradigm case formulation (PCF) does not have the inherent limitations of a definition. Rather than engaging in an inductive procedure, the process of constructing a PCF involves specifying a clear-cut case and then relating other instances to that paradigm by varying one or more aspects of the paradigm case (Shideler, 1988). The clear-cut case is typically a normative instance, but not necessarily so. The paradigm case does not necessarily correspond to or reflect the “preferred”, “valued”, “right”, or “proper” exemplar. Rather, the paradigm case can be regarded as simply an obvious instance. The paradigm case is then “transformed” by adding or deleting particular aspects or characteristics in order to suit the

purpose at hand. In other words, the paradigm case can either be expanded to be more inclusive, or restricted to be more precise and specific.

For example, a PCF of the phenomenon of “family” can proceed as follows. Begin with a paradigm case consisting of a father, mother, and two children, all of whom are blood related. In order to be more inclusive of a range of culturally normative conceptions of family, the following transformations can be applied. In cultures where family extends beyond the nuclear family and blood relatives, the transformation of including extended family members (e.g., grandparents, aunts, uncles, cousins, and in-laws) and non-blood related persons can be applied. In the GLBT communities, the notion of family can include a network of intimate friends, who may or may not share the same sexual orientation (Hancock, 2000). In the case of same-sex couples, the genders of the parents in the paradigm case can be modified. Instead of a father and mother, a family could have two fathers or two mothers, for example. In contrast, a narrower and exclusive notion of family could also be specified by eliminating certain aspects of the paradigm case. For example, the transformation of eliminating the children would allow the couple to be regarded as a legitimate family. The transformations of the paradigm case allows for either the expansion or contraction of the specified domain and phenomenon, as determined by the purpose at hand. Accordingly, PCFs are both conceptually precise, yet flexible.

Parametric Analysis

Essentially, a parametric analysis is a conceptual device for distinguishing one phenomenon from another, and distinguishing different instances of the same phenomenon. A parametric analysis specifies the unique constituent aspects or parameters of a given phenomenon. By specifying the unique set of parameters of a phenomenon, one distinguishes that phenomenon from other distinct phenomenon. In turn, by ascribing particular characteristics to each of the parameters, one distinguishes different instances of the same phenomenon.

To illustrate and clarify, a parametric analysis of color will be conducted. The unique constituent aspects or parameters of color are *hue*, *saturation*, and *brightness*. That is, only the phenomenon of color has this unique set of parameters. This does not mean that these parameters cannot be aspects of other phenomenon. For instance, the parameter of brightness is an aspect of light. However, only color has these particular parameters, and only these three parameters. As such, this set of parameters effectively differentiates color from all other phenomenon. In turn, the particular variable characteristics of each parameter specify the different kinds of colors. For instance, the color red has a certain hue, saturation, and brightness that are distinct from those of the color blue. With respect to multicultural psychology, the utility and advantages of a parametric analysis will be described later in this chapter.

Behavior Formula

As described earlier, paradigm case formulations and parametric analyses are conceptually and pragmatically preferred over definitions in describing and understanding phenomena, particularly those involving persons. Accordingly, a parametric analysis will be applied to the concept of behavior. DP specifies the following parameters for behavior (from Ossorio, 2006).

$$\langle B \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$$

where:

- B Behavior (e.g., the behavior of Peter riding a bicycle)
- I Identity: the identity of the person whose behavior it is (e.g., Peter)
- W Want: the state of affairs that is to be brought about and that serves as a logical criterion for the success or failure of the behavior (e.g., Peter operating the bicycle without falling, traversing a significant distance)

- K Know: the distinctions that are being made and acted on; the concepts being acted on (e.g., bicycle vs. motorcycle, pedaling vs. braking)
- KH Know-How: the competence that is being employed (e.g., skill in balancing on two wheels, regulating speed, steering to avoid obstacles)
- P Performance: the process, or procedural aspects of the behavior, including all bodily postures, movements, and processes that are involved in the behavior (e.g., all of the physical processes entailed in Peter riding the bicycle, which can be described, for example, in terms of fine and/or gross motor skills)
- A Achievement: the outcome of the behavior; the difference that the behavior makes (e.g., travelling down the road, getting exercise)
- PC Personal Characteristics: the personal characteristics of which the behavior in question is an expression; these may include Dispositions (traits, attitudes, interests, styles), Powers (abilities, knowledge, values), or Derivatives (capacities, states, embodiment). (e.g., Peter's knowledge of how bicycles operate, his skill in riding bicycles, and his value of exercise)
- S Significance: the more inclusive patterns of behavior enacted by virtue of enacting the behavior in question (e.g., by moving the pedals, Peter rides the bicycle; by riding the bicycle, he is getting exercise; by getting exercise, he is getting fit for participating in a triathlon; by participating in a triathlon, he is living the life of an athlete)

With regard to multicultural psychology, the parameter of Significance is especially salient. As reflective of patterns of behavior, these patterns are ultimately bound by cultural norms. Culture is essentially a way of living, which in turn is enacted

through behaviors. Hence, all behavior occurs within a particular cultural context, and the significance of any given behavior is ultimately culturally embedded. For instance, in traditional Asian cultures a central value to their way of living is to clearly show respect and deference (Sue & Sue, 2008). One of the behaviors for showing respect is to avoid direct eye contact with the person to whom respect is being given. In this instance, the culturally specific significance of an averted gaze is the expression of respect. However, if the significance or symbolic meaning of this behavior were to be understood from a different cultural context, this behavior could be regarded as expressing evasiveness, disrespect, and/or defensiveness.

As a complementary concept, *implementation* refers to the manner in which an intrinsic behavior is enacted. Intrinsic behaviors can be understood as reflecting the institutions and core values of a culture. As described above, a core value in traditional Asian cultures is showing respect to those in higher social standing. The importance of showing respect reflects the hierarchical structure of Asian cultures in general. With regard to the behavior of an averted gaze, the *significance* or meaning of this behavior is the expression of respect. Conversely, one of the ways in which respect is *implemented* or enacted is by averting one's gaze when addressing someone who deserves respect.

Person Characteristics

The usefulness of a parametric analysis can also be appreciated in understanding the differences and similarities across persons. Person Characteristics are the broad categories and characteristics that effectively distinguish one person from another. Given the complexity of persons, there are three broad categories, and within each category are specific subcategories and parameters, as outlined below (Ossorio, 2006).

Dispositions. Generally speaking, this aspect refers to the frequency with which patterns of behaviors are engaged by the person within a life history. Persons are generally disposed to behave in certain ways that reflect stable high or low frequencies

of occurrence. As such, these behavioral patterns are generally persistent, acquired slowly, and change slowly.

Traits—These refer to a behavioral tendency that spans across situations. Some examples of traits include generous, brave, honest, aggressive, and serene. Conditional or circumstantial traits are expressed only when particular conditions support or elicit them (e.g., inventive).

Attitudes—These refer to behaviors that are context-specific, as some sort of reference object is required, whether it be animate (e.g., person, animals, etc.) or inanimate (e.g., activity, institution, practice, etc.). For example, a person can be suspicious of *x*, intrigued by *y*, or loving toward *z*.

Interests—Similar to attitudes, interests also require an object, but dissimilar in that interests span a range of behaviors, have strong motivational priority, and have intrinsic value. For instance, a person who has interest in automobiles may collect them, read books and magazines about them, and join clubs.

Styles—Unlike the preceding dispositions that refer to *what* a person does, style refers to *how* a person does those things. For instance, a person can be formal, informal, graceful, or awkward.

Powers. This aspect refers to the behaviors that are possible or not possible for a given person.

Abilities—This characteristic refers to what a person can actually accomplish.

Knowledge—This refers to the set of facts and concepts that a person has the competence to act on.

Values—This refers to the set of motivational priorities that a person ordinarily acts on.

Derivatives. Dispositions and Powers are directly connected to behavior. In contrast, derivatives have only an indirect but significant relationship to behavior.

States—These refer to person characteristics that are non-persistent, change quickly, and are readily reversible. A person's state has a systematic affect on the person's dispositions and powers.

Common states include drowsy, exhausted, hungry, anxious, angry, depressed, and euphoric.

Capacities—Essentially, this refers to the power a person has to acquire person characteristics. Capacity codifies the possibilities and impossibilities for developing person characteristics.

Embodiment—All known persons so far, have had a mammalian embodiment and this includes the physiological characteristics or the kind of body of a person. Typically, we refer to such characteristics as a person's hair color, eye color, height, weight, and so on. As a reminder, the person concept in DP is not restricted or equivalent to human beings with the embodiment of homo sapiens. Recall that a person is “an individual whose history is, paradigmatically, a history of Deliberate Action in a Dramaturgical pattern”. The embodiment of an individual can, in principle, be mechanical (at least in part, as in prosthetics). We can entertain the possibility of entirely nonhuman embodiments such as robots or insectoid embodiments. Indeed, it is logically possible to treat primates (as in the great apes), or amphibians (as in the case of dolphins) as special cases of persons—ones that have not yet shown themselves capable of developing science, art, government, and other cultural institutions.

With respect to multicultural psychology, applying the notion of person characteristics is an effective and useful way to clearly understand and describe members of a cultural or diverse group. After specifying a particular individual's person characteristics, this description can then be compared to the normative characteristics and values of that person's culture or group. By doing so, that individual's person characteristics can be understood in terms of the degree to which they represent individual characteristics, and the degree to which they reflect the cultural norms of that person's community. In other words, personal characteristics that are culturally non-normative are quite likely to be reflective of that person's unique person characteristics, as compared to those personal characteristics that are culturally normative.

Pathological State

Clearly, among clinical psychologists one of the salient distinguishing characteristics between persons is the presence of psychopathology. Accordingly, an explanation of pathology is called for. Ossorio (2006) stated, “When a person is in a pathological state there is a significant restriction on his ability (1) to engage in Deliberate Action and, equivalently, (2) to participate in the social practices of the community” (p. 403). The different aspects of this definition will be clarified as follows.

“*Significant restriction in ability*”—Psychopathology refers to a restriction in actual ability, rather than mere refusal or unwillingness to participate in one’s community. This restricted ability is not due to circumstances beyond a person’s control, such as oppression, discrimination, or incarceration. Rather, the significant restriction reflects a deficit in the person’s actual ability. The degree of this restriction is significant, as compared to trivial or inconsequential, because the person *ought* to, normatively, be able to engage in the behavior. The significance is based on the meaningfulness of the behavior that is being restricted. For instance, a restriction in a person’s ability to drive a car (albeit inconvenient) does not preclude that individual from engaging meaningfully in the community. Accordingly, such a restriction does not constitute being in a pathological state.

“*Deliberate Action*”—As described earlier, when a person engages in Deliberate Action, s/he “knows what s/he is doing and is doing it on purpose”. In contrast, we generally regard a person who does not really know what s/he is doing as being pathological, as in the cases of compulsive behaviors such as drinking (alcoholism), checking and hoarding (obsessive compulsive disorders), and starving oneself (anorexia).

“*Participate*”—Participation, in this sense, requires the experience of appreciation and satisfaction from engaging in the community, at least to a minimal degree. Such engagement is meaningful and not merely perfunctory. Persons who participate in their communities in a rather superficial manner are generally

regarded as both being pathological in some way (e.g., anhedonic and/or alienated), and experiencing inadequate meaning and satisfaction (e.g., clinically depressed).

“*Social Practice*”—Fundamentally, “a Social Practice is a social pattern of behavior” (Ossorio, 2006, p. 169). These social patterns of behavior constitute “*what is done*” in a culture and “*how it is done*”. As such, they are teachable, learnable, doable, recognizable, public patterns of behavior that are learned through practice, experience, and participation in a culture (Ossorio, 2006; Shideler, 1988). There are three categories of social practices, namely: *fundamental*, *optional*, and *core practices*. Fundamental social practices are essential for the culture and community to exist and remain viable. These include such practices as raising children, acquiring an education, and earning a living. Optional social practices refer to those that only some members of a culture engage in, depending on one’s place in that culture and community. These include such practices as having pets, teaching a class, and running a business. Core practices are not optional and reflect the essence of a culture or community. For instance, in an agrarian culture, the social practices of planting, cultivating, and harvesting are essential.

With respect to multicultural psychology, the cultural relativism that is inherent in this conception of psychopathology avoids ethnocentrism and promotes accuracy and clarity. This conception of psychopathology is not anchored on particular behaviors that are deemed “maladaptive”, “deviant”, or otherwise “inappropriate”. Such a behavioristic perspective relies on appraising and specifying certain behaviors as pathological. Consequently, a “pathological” behavior in one culture is necessarily also pathological in a different culture, or even in the same culture but in a different time. For instance, homosexuality and homosexual behavior was regarded as pathological in the past (as specified by the first edition of the *Diagnostic and Statistical Manual* published 1952), but is now no longer regarded as such. As another example, experiencing hallucinations about deceased ancestors is generally regarded as psychotic in American culture. However, such an experience is not

necessarily regarded the same in other cultures, such as some Asian and Latino cultures.

Status

Status refers to a person's place within a domain and a particular set of relations with others in that domain (Ossorio, 2006; Shideler, 1988). The DP notion of status differs from the conventional conception which connotes rank, social class, and social standing. Instead, status refers to a person's position within a particular social context. This position, in turn, corresponds to and reflects the range of relationships with others in that social domain and context. These relationships refer to all constituents of a domain, both animate and inanimate. These relationships provide both opportunities and limitations in the person's behaviors, based on the relative positions. For instance, the status of supervisee at a job provides the opportunities to perform one's duties and responsibilities (vis-à-vis one's job description), but also includes inherent limitations with regard to supervising other employees who are not under one's purview. Typically, a person has different statuses across the different domains of that person's life. A person may have the statuses of husband, father, son, supervisor, supervisee, coach, friend, competitor, and teammate, across the different times, situations, and places over the course of one's life. The notion of self-concept can be understood as the summary formulation of all of our statuses, or equivalently the place we take to have in the entire world (see Bergner & Holmes, 2000 or Ossorio, 2006, pp. 377-399).

In the context of multicultural psychology, one of the advantages and implications of the notion of status is reflected in the cultural specificity of statuses. Cultures determine the possible statuses or positions that members of that culture can occupy and act from. For instance, the status of psychologist exists in cultures that recognize the practice of psychology, and the status of shaman exists in a culture that recognizes the supernatural. Unless the cultural specificity of statuses was kept in mind, the legitimacy of certain statuses would be questionable at best.

Describing Personal Development

As a reminder, the context within which these concepts are being described and taught is a course on racial/ethnic identity development, as an introductory class in the four-course year-long sequence in multicultural psychology. Once the central concepts related to persons per se have been established, the notion of personal development can then be examined. In other words, having answered the question “Who are we?”, we can now address the question, “How did we get that way?”

Developmental Formula

We can now build on the concept of Person Characteristics to examine and understand personal development. Essentially, personal development involves the acquisition of person characteristics. The developmental formula states that person characteristics develop by having the prior capacity and the relevant intervening history (Ossorio, 2006). A person’s capacity refers to that person’s potential to acquire certain person characteristics. The realization of that potential calls for the proper circumstances to elicit, develop, and maintain the corresponding personal characteristics. A person who has the capacity to become an accomplished musician would realize that potential only under the suitable conditions, which become the relevant history. Without the relevant history, that capacity would unlikely be realized, except perhaps by mere chance.

The developmental formula is recursive in that the newly acquired person characteristics provide the new capacity to develop other person characteristics, and so on. For instance, a person who has the capacity to be an accomplished triathlete may have first acquired the ability to swim at a young age while taking lessons (relevant history) during a summer vacation. This new ability then provided the capacity to regard oneself as physically capable and coordinated, which under the necessary circumstances led to learning how to ride a bicycle competently (relevant history). This acquired person characteristic provided the basis upon which the

person continued to pursue athletic activities (relevant history) and developed an interest (person characteristic) in running.

As a disposition, interests provide the basis and reasons to intrinsically engage in behaviors that are related to the particular interest in question, for instance running. As satisfaction, and presumably at least some minimal degree of competence, are acquired by engaging in an interest, the person typically has reasons and opportunities to develop and pursue other related interests. Upon engaging in these related interests, other related interests are likely to be acquired and pursued. For instance, a person interested in running may acquire an interest in hiking, and then later perhaps in swimming. In contrast, a person who has interests in more sedentary pursuits and/or indoor activities is unlikely to acquire and develop interests in athletic and/or outdoor activities.

Application Exercise. In order to enhance the students' level of understanding of these fundamental DP concepts, the students are instructed to apply these concepts through an exercise conducted during the class. Specifically, students are directed to apply the developmental formula to understand how they may have developed certain person characteristics. They are instructed to choose one or two of their own personal characteristics and apply the developmental formula to describe how they may have developed those particular characteristics. An alternative perspective and strategy is for them to consider a strong ability that they were once only "merely able" to do, and then to describe the developmental process that led to their current ability level. In this process, they were advised to focus on the relevant circumstances and events in their lives that provided opportunities for them to develop their capacities. One of the primary pedagogical goals of this exercise is to begin to sensitize the students to the complexity and degree of difficulty that is ordinarily involved in personal change and development.

Describing Persons in Relationships

The focus thus far has been on understanding persons as individuals by asking the questions “Who are we?” and “How did we get that way?” From this understanding of persons as individuals, we can now examine persons in relationships by asking “How do we describe, compare, and contrast groups of individuals?”

Culture

Culture, as a Way of Life, provides the behavioral patterns that guide the ways in which individuals and groups of individuals interrelate. Cultures are embodied in the social structure provided by societies (Ossorio, 2006). Understanding groups of individuals requires the explication of culture per se. Culture is a particular kind of community by virtue of having two distinguishing characteristics. First, cultures have “stand-alone viability”, which refers to the self sufficiency with which they satisfy the needs of its members. In other words, a culture does not require anything but itself to have its members survive and thrive. Second, cultures have “life scope”, which refers to how a culture encompasses the entire lives of its members. In contrast, communities lack both of these characteristics. For instance, a community of psychologists cannot sustain itself, as they rely on the larger community within a society for their survival. Furthermore, the community of psychologists does not encompass the entire life of any one psychologist, since a psychologist is a member of other communities as well. As a final essential characteristic of culture, in order for a Way of Life to be actually viable, a culture has to satisfy the Basic Human Needs of its members.

Basic Human Needs

Basic Human Needs refer to those conditions that if not met at all, make behavior impossible. In contrast, Needs refer to those conditions that if not met, result in a pathological state. Although there is no one definitive and universal list of Basic Human Needs,

the example that follows is representative and conveys the essence of this concept (Aylesworth & Ossorio, 1983; Lasater, 1983; Ossorio, 1983).

Status. A person requires a place in the world from which to behave.

Order and meaning. Order is required to provide distinctions, as the world cannot be random and chaotic. Worlds cannot be meaningless.

Adequacy. This refers to some minimal competence to engage successfully in the world and behave.

Personal relationships. Since all behaviors are essentially enactments of culturally ascribed social practices, personal relationships are required to engage in these social practices.

Self actualization. This refers to some ongoing personal development, without which personal growth is impossible.

Parametric Analysis of Culture

As a particular kind of community, the parameters of culture are closely related to those that Putman (1981) specified in his parametric analysis of communities. Ossorio (2006) specified the following parameters of culture:

World. This parameter refers to the context, structure, and principles of the world as it is understood. This includes (a) the place of the community in the world, (b) the history of the community, including its relations and interactions with other communities, and (c) the past, present, and (in principle) future history of the world.

Members. These are the individuals who have participated, or currently participate, or will participate in the particular culture. In general cultures outlive individuals, thereby the membership of a culture includes the historical totality of members and not merely the current participants.

Social Practices. This parameter refers to the repertoire of behavior patterns which in a given culture, constitute what there is for the members to do. Social practice also refers to the various ways in which a given behavior pattern can be done. Some instances

of social practices are having dinner, reading the newspaper, and attending an artistic performance. In general, social practices are components of organized sets or structures of social practices, the latter being referred to as institutions or organizations. Examples of institutions include getting married, passing and enforcing laws, educating children, earning a living, and engaging in commerce. Social practices are either intrinsic or non-intrinsic. An intrinsic social practice is one that can be understood as being engaged in without ulterior motives and without a further end in view. Accordingly, non-intrinsic social practices are those that are not intrinsic. In general, institutions are intrinsic in that individuals do not generally need reasons to get married, pass and enforce laws, and educate their children. Rather, those are simply what members of a culture do unless they have good enough reason not to do so.

Statuses. This parameter reflects the social structure which involves the differentiation and meshing of activities, standards, and the values among different sets of individuals. This social structure can be articulated in terms of statuses.

Language. Every culture has at least one language spoken by its members.

Choice Principles. A social practice is a behavior pattern which has a hierarchical structure that reflects the multiplicity of stages and of options through which a person can engage in that social practice. Choices are inevitable since, on any given occasion, a social practice must be done in *one* of the ways it can be done. These choices are usually within the organizational or institutional level, (e.g., one has to make various choices in the course of raising children). Cultural choice principles are more or less normative and provide guidelines for choosing behaviors in such a way as to express and preserve the coherence of human life as we (the members of the culture) live it and (generally) to preserve the stability of the social structure. Choice principles apply to the choice of a particular social practice to engage in, as well as the choice of options within a practice. Thus, they apply at all levels of cultural participation.

Choice principles are ordinarily articulated in the form of value statements, or policies, or slogans or mottoes, or maxims, or in scenarios such as myths and fables. Choice principles are most commonly articulated in value terms, and most directly expressed in policy terms; however, any of the forms described above will qualify. Accordingly, the delineation of the choice principles of a specific culture is particularly well suited to portray “the essence” or “the spirit” of that culture and distinguish it from others.

For the sake of illustrating the various ways in which choice principles are articulated, the following examples within the dominant culture of the United States will be provided. *Value statements* are primarily used descriptively, but can also be prescriptive of behaviors. Some common value statements include: individual freedom, self reliance, equal opportunity, self improvement, pursuit of happiness, competition, Protestant work ethic, upward mobility, and material wealth. *Policies* are direct prescriptions for choosing behavior. Some typical policies include: Every man for himself; Look out for number one; Be direct and to the point; Say what is on your mind; Fight your own battles; When the going gets tough, the tough get going. *Slogans* and *mottoes* are common sayings and beliefs including: Going from rags to riches; Keeping up with the Joneses; Eat, drink, and be merry, for tomorrow we die; Actions speak louder than words; Life is what you make it; Cleanliness is next to Godliness; Time is money. *Maxims* have the general character of being warnings and reminders, such as: Look before you leap; Never look a gift horse in the mouth; Save for a rainy day; Idle hands are the devil’s workshop. *Myths* and *fables* convey perspectives, beliefs and values in the form of a story, such as warning against treason through the story about Benedict Arnold, promoting patriotism through the story about Paul Revere, valuing ingenuity and inventiveness through the story about Thomas Edison, advancing the entrepreneurial spirit through the story about Henry Ford, and promoting philanthropy through the story about Andrew Carnegie.

In order to demonstrate how “the essence” or “spirit” of a culture can be captured by articulating its choice principles, a contrasting set of choice principles will be described—in this case, those of traditional Filipino culture (Lubuguin, 1998). Some common *values* include: religiosity; competition; modesty and humility; family and kinship; compassion (*awa*); respect, deference, and obedience of authority and elders (*galang*); education; attaining a position of authority and importance; and being well groomed. Some customary *policies* include: maintain smooth interpersonal relationships; pay a debt of gratitude (*utang na loob*); join a group for the sake of promoting the common good (*pakikisama*); be sensitive to the rights, feelings and individuality of others (*respeto*); and use formal titles (e.g., doctor, attorney, captain, Mr. and Mrs.) when addressing others to show respect for their age and authority. Two examples of slogans and mottoes are, (a) have the spirit of togetherness and gregariousness (*bayanihan*), and (b) follow the “Golden Rule” of “do unto others as you would have them do unto you”. Common maxims include, (a) avoid bringing shame to yourself and your family (*hiya*), and (b) avoid affronting others (*amor propio*).

Based on these contrasting examples, one can appreciate the particular ways in which the individualistic culture in the United States can be enacted, as well as some of the ways in which the collectivistic Filipino culture can be expressed by its members. This manner of clearly and accurately describing the “essence” and “spirit” of a culture by articulating its choice principles is an effective ethnographic strategy that avoids the pitfalls of stereotyping.

Standard Normal Person

Having established an understanding of culture in ways that allow us to describe, compare, and contrast different ways of living, we can now address the following question—“How do we describe and differentiate individuals of a certain culture?” An approach to understanding an individual member of a culture is to employ a Paradigm Case Formulation. However, how can one accurately

specify a person description of a “clear-cut” member of a particular culture without resorting to stereotypes or simply failing? Another useful DP concept is that of the Standard Normal Person (SNP). A SNP is a hypothetical individual who does merely what the situation calls for in every instance (Ossorio, 1983). The behavior of the SNP strictly reflects the norms of a given culture, and as such, these behaviors have no personal distinguishing characteristics. In other words, all of the behaviors engaged in by this hypothetical individual are expressions of conforming to the cultural norms. The attributes of this individual are strictly social and not individual. In general, the kinds of descriptions attributed to the SNP are double negatives; for instance, “fairly independent”, meaning “not especially independent, but not dependent either”.

The person characteristics of a SNP are those that are anchored by the specific characteristics of a given culture, as derived from a parametric description of that culture. A parametric description is one that specifies the particular values of the parametric analysis of that culture. As a reminder, a parametric analysis of culture specifies the aspects of culture per se, while a parametric description specifies the characteristics of each of the parameters. For instance, a choice principle in U.S. culture is the value of freedom and self reliance. A corresponding person characteristic of a SNP person may be someone who is “reasonably self reliant”, or someone who is not extremely self reliant, but not lacking in self reliance altogether.

The primary distinction between a SNP and a stereotype is that the former is hypothetical, whereas the latter is regarded as real. Stereotypes are regarded as real by virtue of being acted upon when relating to individuals. That is, those who have stereotypes about persons of a particular group tend to relate to persons of that group in ways that reflect the stereotypes they hold. Furthermore, stereotypes are fixed, specific, and conventional views of a group of persons that disallows any individual differences.

In contrast, a SNP provides nothing more than a reference point, from which to compare real individual members of a certain culture. As a reference point, comparisons are made against the “normative”

standards and personal characteristics. The greater the discrepancy between the SNP and the actual person, the more distinct that person is among members of his or her own culture.

The SNP can also be utilized to compare and contrast individuals of different cultures. First, each individual is compared to the SNP of that individual's culture. A person description is generated that clearly reflects the degree to which that individual differs from the cultural norm. These two descriptions are then compared to each other to understand the cross-cultural differences in person characteristics. This methodology effectively eliminates ethnocentric comparisons of person characteristics since the reference point for the comparison is neither the norms of one's own cultural group, nor a particular member of one's own cultural group. As such, one can avoid the "us versus them" discriminatory perspective and attitude of regarding an individual of a different cultural group as a "deficient", "defective", or otherwise poor version of "us".

Cultural Displacement and Acculturation

The guiding question regarding these phenomena is "How does a person adapt to a culture that s/he was not originally raised in?" In order to understand and respond to this question, the concepts of cultural displacement and acculturation must first be clarified. From a DP perspective, cultural displacement is conceptualized in the following way—"a culturally displaced person is an individual who has an experientially based, internalized culture of origin, a culture which contrasts in more or less important ways with a second, host, culture into which the person has been displaced and is currently living" (Aylesworth & Ossorio, 1983, p. 49). In turn, acculturation is conceptualized as the process involved when a culturally displaced person may, as a result of living in the host culture, undergo a change in Person Characteristics in the direction of the Person Characteristics of the SNP of the host culture (Lubuguin, 1998).

Lubuguin proposed a model of acculturation that involved a hierarchy of choice principles. Central Choice Principles are those

that have the greatest importance and priority relative to the others. There may or may not be any one central choice principle that is *the* highest in importance and priority. In turn, Intermediate Choice Principles are those that have relatively less importance than central choice principles. Finally, Peripheral Choice Principles have the least importance and priority to the other two. This hierarchy is based on the natural notion that the entire set of cultural choice principles do not hold equal value, importance, and priority.

The relationship between these three levels of choice principles is that the central choice principles are enacted through the intermediate choice principles, which in turn, are enacted through the peripheral choice principles. Formally speaking, central choice principles are *implemented* through engaging in intermediate choice principles, which are in turn, *implemented* through engaging in peripheral choice principles. For instance, within U.S. culture the central choice principle of individual freedom and rights (as a value) is implemented by acting on the intermediate choice principle of achieve financial and emotional independence from your parents (as a policy), which in turn is implemented by acting on the peripheral choice principle of “stand on your own two feet” (as a motto).

Conversely, the *significance* of a behavioral expression of a peripheral choice principle is the corresponding intermediate choice principle. In turn, the *significance* of the particular intermediate choice principle is the corresponding central choice principle. In the example described above, the significance of a person “standing on his own two feet” is the realization of the policy of achieving financial and emotional independence from one’s parents. In turn, the *significance* of a person acting in ways that promote their independence is the realization of the value of having individual freedom and rights.

Regarding the process of acculturation, Lubuguin proposed the following Attraction Model of acculturation. This model asserts that the culturally displaced person wants to become a full member of the new host culture as soon as possible. This perspective is generally more applicable to culturally displaced individuals who chose to

move to the new host culture, such as in the case of immigrants. According to this model, the process of acculturation proceeds in the following manner. Peripheral choice principles change more and more quickly, relative to the intermediate choice principles. To review, the nature and direction of the change is toward the SNP of the new host culture. Intermediate choice principles, in turn, change less and less quickly, relative to the peripheral choice principles. Central choice principles change even less and less quickly, if at all, relative to the intermediate choice principles. As a doctoral dissertation, this model was tested empirically and the data supported this particular conceptualization of the process of acculturation.

Application Exercise

These DP concepts, perspectives, and methodologies are particularly applicable in promoting the students' self awareness, specifically regarding their own values, attitudes, and behaviors. The students are guided toward extending the earlier exercise by applying the developmental formula to their new understanding of culture in general and choice principles in particular. Specifically, they are instructed to interview their extended family members, especially the elders in their family, to gather stories about their heritage and their family's history in the United States. With this information, they are instructed to apply the developmental formula to examine and understand the development of their own racial/ethnic/cultural identity. This exercise is intended to promote the realization that their own and their family's values, attitudes, behaviors, and perspectives may be more than a matter of being "merely me" and "that's just how my family is". Instead, their person characteristics may be, at least to some significant degree, their own idiosyncratic implementation of culturally specific choice principles and social practices.

Culturally Competent Psychotherapy

As the final course in the year-long four-class multicultural psychology course sequence, this class integrates the

theoretical content of the preceding classes and explicates their psychotherapeutic implications. The class focuses on acquiring the necessary clinical judgment, sensitivity, and skills for providing culturally competent psychotherapy. The ultimate aim of the course is to acquire the following: (a) an understanding of multicultural psychotherapy, (b) an understanding of the process of acquiring cultural competence, (c) an accurate self-appraisal of one's current level of cultural competency, and (d) an individualized plan for developing one's degree of cultural competency. The following DP concepts are taught and utilized toward accomplishing these aims.

Understanding Multicultural Psychotherapy

Part-Whole Relationships

Generally speaking, we are familiar with the saying “the whole is greater than the sum of its parts.” Essentially, this saying reminds us that understanding, knowing, and doing the “parts” of any given phenomenon does not necessarily provide us with a clear or adequate understanding and appreciation of the “whole” phenomenon. For instance, in the case of conducting psychotherapy, understanding, knowing, and doing active listening per se does not provide a person with a clear nor adequate understanding and appreciation of conducting psychotherapy, nor does it necessarily render that person competent to conduct psychotherapy.

Within the canon of DP, there are many instances of part-whole relationships. For instance, social practices in general, and institutions in particular, are an instance of a “whole”; whereas, the individual manner in which a particular person enacts those social practices (as guided by that person's choice principles) is an instance of a “part”. Another clear example is reflected in the parametric analysis of culture, wherein the parameters themselves are “parts” of the “whole” phenomenon of culture. Similarly, the transformations added or deleted in a paradigm case formulation are “parts” of whatever “whole” phenomenon is being examined. In the case of

understanding multicultural psychotherapy, a particular part-whole relationship is especially salient—namely, task analysis (part) versus process description (whole).

Task Analysis Versus Process Description

The fundamental question involved in understanding multicultural psychotherapy is “How is doing therapy with a person of one cultural group different from doing it with a person of a different cultural group?” In order to adequately understand and respond to this very important question, two important concepts will be explicated.

Task analysis involves examining and describing the component activities and actions involved in a given behavior (Ossorio, 1983). The information that is acquired through this process is equivalent to achievement descriptions of the particular activity. For instance, some of the tasks involved in conducting psychotherapy include paying attention, actively listening, making empathic statements, asking questions, gathering information, and providing summaries and interpretations. It is important to note that when a person engages in any of these or any combination of these tasks, that person is not necessarily conducting psychotherapy. Each of these tasks is equivalent to an achievement description regarding whether or not that task is actually completed successfully. Therefore, a task analysis of a therapy session could include such descriptions as “the therapist paid attention” and “actively listened”, but “failed to make empathic statements and provide summaries and interpretations”. Such a reductionistic account of the tasks involved in conducting psychotherapy certainly fails to capture the essence, nuance, and meaning of the endeavor.

Process description includes delineating the sequential structure of the endeavor, the various options available over the course of the endeavor, and the contingencies involved during the course of the endeavor that reflect the characteristics of the person engaging in the activity (Ossorio, 1983). In the case of conducting psychotherapy, delineating the sequential structure of the therapy session could

involve describing the steps taken by the therapist to establish a therapeutic alliance, conduct an adequate assessment for the sake of generating a case formulation, and acting on that case formulation to provide an effective therapeutic intervention. A description of the various options available over the course of the therapy session could involve accounting for the options of actively listening, making empathic statements, asking probing questions, providing clarifying summaries, and stating insightful interpretations. Finally, an account of the contingencies involved during the course of the therapy session that reflect the characteristics of the therapist could include an appraisal of the therapist's ability to recognize and act on the opportunities to conduct effective interventions, thereby meeting at least some of the therapeutic needs of the client.

Based on this distinction, we can now address the original guiding question—"How is doing psychotherapy with a person of one cultural group different from doing it with a person of a different cultural group?" The simplest, albeit inadequate, response is "Nothing, you *do* the same activities in both cases." In other words, from the task analysis perspective, the actual activities such as paying attention, actively listening, asking questions, and so on, are essentially the same. However, from the process description perspective, the more complex, albeit vague, response is "You do therapy differently." Doing therapy differently involves attending and responding to the cultural differences that are clinically salient in the particular circumstances with the particular individual. In other words, doing therapy differently will vary across individuals of different cultures, and not across groups of individuals of different cultures. It is essential to maintain and apply the notion of part-whole relationships to truly understand how an individual is a "part" of the "whole" culture in which that individual lives. Culturally competent psychotherapy requires treating the individual as such, and not merely as a member of a particular cultural group.

Returning to the matter of "doing therapy differently", the complexity of this ostensibly simple approach calls for further elaboration. Two core powers are required for "doing therapy

differently” in a culturally competent manner—namely, sensitivity and judgment (Ossorio, 1983).

Conducting Culturally Competent Psychotherapy

Sensitivity

To have sensitivity requires knowledge about culture, cultural groups, and the experiences of individuals of different cultural groups. Having mere familiarity or some degree of knowledge about these matters is generally inadequate for acquiring the necessary level of sensitivity that providing culturally competent psychotherapy calls for. Knowledge about culture involves understanding the distinct perspective that each culture has regarding approaching and being in the world, which corresponds to the discrete way of life of that culture. The kind of knowledge that is required involves not only having information, but also having meaningful relevant experiences with cultures and cultural groups, and meaningful relationships with individuals of various cultural groups. Put simply and colloquially, “book knowledge” is insufficient since “real life” knowledge is what is required. With this kind of knowledge, a therapist is enabled to competently recognize the reasons and opportunities for clinical interventions.

For instance, traditional Asian American families tend to be structured in a hierarchical and patriarchal manner, in which the males and older family members hold greater power (Lee & Mock, 2005). Many decisions and choices are made by the parents and conveyed to the children, who are expected to defer to their parents. The general style of communication is indirect and high-context, which means that the actual meaning of what is communicated is not merely about the words that are expressed, but also about the social context, the immediate situation, and the relationship between those who are communicating, among other contextual variables. Understandably, it would be difficult to imagine how a therapist could acquire the degree of understanding about these cultural

characteristics that would enable that person to be adequately sensitive, without having experiential knowledge.

Judgment

The complementary power to sensitivity is judgment, which is required to weigh the reasons and opportunities that a therapist recognizes (by having the necessary sensitivity). In turn, sound judgment is exercised in order to intervene effectively. Exercising sound judgment involves recognizing the clinically and culturally relevant circumstances involved at the given time, weighing those circumstances appropriately, making the proper decision or choice among the available options, and finally implementing the decision.

For instance, in the case of a young Asian American college student who is struggling with selecting a major and deciding on a career path, knowledge about traditional family structure and expectations would be essential in order to understand the real meaning and implications of this struggle. Sound judgment may require determining the degree of acculturation of this individual, as an instance of recognizing the clinically and culturally relevant circumstances. Based on this assessment of the level of acculturation, the thinkable options could then be determined and prioritized, as an example of weighing the relevant circumstances appropriately. The preferred option(s) could then be determined upon further discussion and exploration with the client, as an example of making the proper choice among the available options. Finally, the proper timing and effective manner in which the option(s) were raised by the therapist is an example of implementing the decision effectively.

In summary, both of these essential powers of sensitivity and judgment are acquired by having the *relevant practice and experience* (Ossorio, 1983). Relevant practice comes primarily from actually conducting therapy with culturally diverse individuals. Relevant experience comes not only from conducting therapy, but also from having the real life experiences required to have “real life knowledge” and develop adequate sensitivity.

Understanding and Acquiring Cultural Sensitivity

Having established the essential nature of the two core powers of sensitivity and judgment, the question that naturally follows is “What are some ways to understand and acquire the relevant cultural sensitivity?” Two DP concepts that have been discussed earlier are especially pertinent to this question.

Significance

To review, Significance is the parameter of behavior that refers to the symbolic meaning of the particular behavior. All behaviors are essentially enactments of social practices, which refer to what and how “things are done” in a given culture. In other words, social practices correspond to the culturally specified repertoire of behavior patterns available to the members of a given culture. Accordingly, the constituents of social practices are individual behaviors. These individual behaviors that form patterns are interrelated to each other in terms of significance. For instance, Peter participating in a triathlon is a social practice, which in turn is the significance of Peter getting exercise (as a social practice) in order to prepare for the triathlon, which in turn is the significance of Peter riding his bicycle (as another social practice). Therefore, by attending to and becoming increasingly sensitized to the significance of behavior and social practices (as patterns of behavior), a clinician gains formal access to the behavioral patterns of a particular culture, thereby increasing the clinician’s sensitivity to that particular cultures’ characteristics.

Implementation

To review, conversely speaking, implementation refers to the person’s individual manner of enacting intrinsic behaviors, which reflect the institutions and core values of the person’s culture. A clinician can gain knowledge, understanding and sensitivity to these institutions and core values by attending to the significance of behaviors, as described earlier. The consequent broad and clear understanding of the culture’s institutions then provides the essential

context and perspective with which to appreciate the real meaning and relationships among the social practices of a given culture. In turn, this contextualized understanding provides the perspective with which to comprehend the various ways in which members of a given culture can enact their culture in their own individual manners. In other words, applying the concept of implementation provides formal access to a particular individual's realization and enactment of his/her culture.

As another instance of part-whole relationships, the individual's idiosyncratic enactment (or *implementation*) of the social practices of his/her culture is the "part" to the "whole" of the totality of the social practices that are specified by that person's culture. Conversely, the *significance* of the individuals' enactments (as parts) reflect the range of social practices that are made available by the person's culture, all of which have the ultimate significance that reflects the institutions and core values of that culture (as the whole).

Understanding, Comparing, and Contrasting Differences Across Different Cultures and Individuals

We now turn to the problem of avoiding, or at least minimizing, ethnocentrism when we attempt to understand, compare, and contrast differences across different cultures and individuals of the same culture. For this important endeavor, we will employ the strategy of parametric descriptions of culture and the conceptual device of the behavior formula, respectively.

Parametric Descriptions of Culture

To review, a parametric analysis of culture *per se* specifies the constituent aspects of the phenomenon of culture. By doing so, we distinguish the phenomenon of culture from all other phenomena. In order to systematically describe the characteristics of a particular culture, we specify the "values" or "content" of each of the parameters. Specifically, we articulate the following: (a) the world as conceived by the particular culture, (b) the members who

comprise the culture, (c) the social practices that provide what there is for the members to do, (d) the statuses available to the members of that culture, (e) the language(s) spoken by members of the culture, and (f) the actual choice principles of the culture. In order for these descriptions to be accurate and meaningful, they are based on the perspective of a member of that culture as an “insider” and not on an “outsider” observer.

When comparing and contrasting cultures to one another, a parametric description is generated for each of the cultures in question. These descriptions are then compared to each other to appreciate the similarities and differences between the cultures. Conventionally, cultural comparisons are made by using one’s own culture as the reference point and standard of comparison. Moreover, one typically applies one’s own personal perspective and version of one’s culture in order to understand and appraise other cultures. In contrast, by comparing parametric descriptions, the ethnocentrism that is inescapable by utilizing one’s own culture as the standard and reference point is at least minimized, if not avoided in principle.

Behavior Formula

To review, the behavior formula specifies the parameters of behavior. The specific parameters are: (a) Identity—the person engaging in the behavior, (b) Want—the state of affairs intended by the behavior, (c) Know—the distinctions being acted upon, (d) Know-How—the competence being employed, (e) Performance—the “skills” involved in the behavior, (f) Achievement—the outcome of the behavior, (g) Personal Characteristics—the personal characteristics of which the behavior is an expression, and (h) Significance—the symbolic meaning of the behavior.

The process of understanding, comparing, and contrasting behaviors of individuals within the same culture is analogous to that of comparing parametric descriptions of cultures as described above. In this instance, the comparisons made are between the behaviors one would expect of a SNP of a given culture and that of the particular person in question. To review, the SNP is a hypothetical

person who is the embodiment of a particular culture, and as such behaves in ways that reflect simply what the situation calls for. In other words, the behaviors of the SNP reflect the culturally normative ways of behaving. As a hypothetical construct, the SNP differs markedly from stereotypes which are regarded as real, fixed, and rigid personal characteristics. By utilizing the SNP as the reference point, one can understand the extent to which a particular person's behavior complies with or deviates from the cultural norms of that person's culture. Hence, a clearer and more accurate understanding of individual differences is gained from this sort of comparison, as opposed to comparisons that are made by comparing two cultural members to each other, or by comparing a person to an individual of a different culture or to oneself; both of which have obvious detrimental implications and consequences.

Adapting Current Knowledge and Skills

This final section will address an important practical consideration in training students to develop cultural competence. Specifically, by the time students are taught this particular perspective on cultural competence and its acquisition and development, students generally have a range of pre-existing skills, knowledge and understanding about the nature of psychopathology and psychotherapy. Their current skills and perspectives may or may not be consistent or compatible with the DP conceptual framework. Accordingly, the question that arises is “What are some considerations and helpful DP concepts for adapting what I already know about how to conduct psychotherapy when working with diverse clients?”

Justification Ladder

A common dilemma is how a student can competently and effectively adapt various theoretical orientations of psychotherapy that may be in conflict with some of the principles of cultural competence. For instance, a common aim of psychotherapy held by

some popular theoretical orientations is the acquisition of insight as a means of promoting self-understanding and self-actualization. This perspective of psychotherapy and psychological well being is quite consistent and compatible with individualistic cultures. Collectivistic cultures, by nature, are not primarily concerned with gaining insight and focusing on oneself. Instead, these cultures tend to be much more concerned with the common good and social harmony. As such, how can a clinician adapt the orientation that promotes insight when working with individuals from collectivistic cultures?

The Justification Ladder is a conceptual device used to provide reasons and justifications for our behaviors and those of others (Ossorio, 1978). This device is structured hierarchically in that stronger justifications are those that are higher on the “ladder”. Specifically, the bottom “rung” on the ladder is *judgment*, which reflects our personal appraisals of the immediate circumstances. Since our judgment relies primarily on our individual appraisals, we can justify our decisions and actions by appealing to the next “rung” up on the ladder. *Customs* refers to the ways in which the behavior in question is commonly and customarily done by others in the community. As such, the justification does not rest on the individual’s sole appraisals, but rather relies on the common choices and actions of the collective. If the custom is challenged, then the next justification is based on *theory* or *principle*. These rely on the values and perspectives of the community that have broad scope. In other words, the justification extends beyond being merely one of personal appraisal (in judgment), and beyond merely what is conventional (in custom); and instead, relies on the broadly held shared beliefs of the community that are reflected in their theories and principles. Finally, the ultimate justification is that of *competence*. As the highest rung, the final justification relies on the simple criteria of effectiveness.

With respect to adapting one’s theoretical orientation to justify culturally competent practices in psychotherapy, the clinician can utilize that Justification Ladder to confidently assert that there are occasions that call for rising above theory and principles in order to simply do what is effective. After all, the ultimate aim of providing

psychotherapy is to alleviate the pathological state that disables the person, and not to dogmatically implement psychotherapeutic theories and principles.

Emotions

The phenomenon of emotions is one that people in general, and psychologists in particular, have been unable to precisely and universally define. Notions of emotions include referring to some kind of feeling, experiencing some physiological sensations, being an affective state of consciousness, and being an instinctual response, among many others. Given the ambiguity and complexity of emotions, the body of literature in DP has articulated its formulation extensively over time. In the most comprehensive book about the foundational concepts of DP, Ossorio (2006) devoted an entire chapter to this phenomenon. An in depth review of emotions is beyond the scope of this current chapter. Instead, the aspects of emotion that are particularly applicable to culturally competent psychotherapy will be described.

From a DP perspective, emotions denote a particular relationship between a person and an object or state of affairs (Bergner, 2003). As such, the relationship reflects the appraisal made by the person about the other person, object, or state of affairs. This appraisal, in turn, carries motivational significance, and therefore elicits certain corresponding behaviors. The other person, object, or state of affairs corresponds to the “reality basis” of the emotion, while the appraisal made by the person about the reality basis reflects the nature of the relationship that person has with the reality basis. The person’s appraisal of the relationship then provides the motivation to engage in the corresponding emotional behavior.

For instance, imagine a scenario in which a person is alone in a room engaged in some benign activity. Suddenly, a lion walks into the room. The person naturally appraises the lion as a dangerous animal, and realizes his relationship with the lion as one in which he is in great peril. Accordingly, his emotional response is fear, which in turn compellingly motivates him to escape from danger.

Hence, the reality basis of the lion (and being in danger) elicits the emotion of fear, which in turn motivates him to escape from peril. This particular example clearly demonstrates the logical relationship between the reality basis of the emotion, the emotion itself, and the corresponding behavior that the emotion elicits. Some other examples of this logical relationship are as follows (Bergner, 2003): (a) wrongdoing is the reality basis of guilt, which in turn elicits penance and restitution, (b) provocation is the reality basis of anger, which in turn elicits hostility, (c) loss or misfortune are the reality basis of sadness, which in turn elicits grieving, and (d) good fortune is the reality basis of joy and happiness, which in turn elicits celebration. Of course, this is merely an illustrative and not exhaustive list of emotions, their reality basis and the behaviors that the emotions elicit.

Broadly speaking, this formulation of emotions has meaningful clinical implications. Specifically, the critical importance of the reality basis of the emotions, and the person's appraisal of that reality basis are vital to assess and address. For instance, is the reality basis of the person's emotions real or is it misperception or delusion, as in the case of real or imagined provocation that elicits anger and hostility. In this case, treatment may focus on helping the person improve her ability to perceive realistically and think clearly. In another instance, the person's ability to perceive realistically is quite intact, but his ability to make reasonable appraisals may be impaired. For instance, a person may accurately perceive a real kitten in the room, but inaccurately appraises the kitten to be dangerous. In this example, treatment may focus on improving the person's ability to make accurate appraisals.

In the context of culturally competent psychotherapy, this formulation and perspective on emotions can have great utility. For example, traditional Asian cultures tend to value emotional restraint, as an indicator of self restraint and discipline (Leong, Lee, & Chang, 2008). However, some therapeutic orientations tend to value and emphasize emotional expressiveness, such as psychodynamic approaches. Clearly, eliciting emotional expressiveness from

someone who values emotional restraint is quite therapeutically inappropriate. In this instance, addressing and resolving emotional distress and conflicts can be effectively conducted by focusing on the reality basis of emotions, rather than on the emotions themselves. For example, rather than guiding and encouraging the client to express anger, the therapist can focus instead on the provocation itself and what to do about that.

In conclusion, the value placed on “feeling talk” is not culturally universal, as some cultures value and prefer a more pragmatic approach to therapy. Furthermore, such a value and perspective is not deficient in any way, but rather simply different. In these instances, addressing the reality basis of emotions themselves is a means of legitimizing this perspective and justifying how unnecessary engaging in “feeling talk” actually is in order to provide competent and effective psychotherapy.

Summary

The purpose of this chapter was to provide an example of the application of the intellectual discipline of DP to an important and meaningful scholarly and practical endeavor. The scholarly enterprise was to explicate the fundamental constituent concepts of cultural competence. The practical goal is the training of clinical psychology graduate students by providing the foundational concepts, perspectives, and methodologies required to begin their lifelong aspirational goal of developing their cultural competence as psychotherapists. Rather than offering a mere proposed training model, this paper described an actual successful case of such an application, specifically, the first and last courses of a year-long four-course sequence in multicultural psychology taught at the University of Denver, Graduate School of Professional Psychology.

The first course entitled “Racial/Ethnic Identity Development” posed the questions—“Who are we?” and “How did we get that way?” The course material answered these important questions by introducing the foundational concepts of person, behavior, person

characteristics, status, developmental formula, communities, culture, basic human needs, pathological state, standard normal person, cultural displacement, and acculturation. The course curriculum also introduced the conceptual devices of paradigm case formulation and parametric analysis. These concepts, in turn, are applied to promote self awareness, sensitivity, understanding, and knowledge about cultural differences between persons.

The last course entitled “Culturally Competent Psychotherapy” posed the overarching question—“How is doing psychotherapy with a person of one cultural group different from doing it with a person of a different cultural group? The specific sub-questions posed include: “What are some ways to acquire and understand the relevant cultural sensitivity?”, “How can I understand differences and similarities of behavior across cultures and across individuals of a particular culture?”, and “What are some considerations and helpful DP concepts for adapting what I already know about how to conduct psychotherapy when working with culturally diverse persons?”

In order to answer these important questions meaningfully and thoroughly, the following concepts and methodologies were introduced and articulated: part-whole relationships, task analysis versus process descriptions, sensitivity and judgment as essential powers, significance and implementation, utilizing parametric descriptions of cultures, applying the behavior formula to understand differences and similarities of behaviors across cultures and across individuals of a particular culture, applying the justification ladder as a way to mindfully adapt various theoretical orientations to culturally diverse persons, and finally, providing an alternative perspective on the notion of emotions that reduces some aspects of the culture-bound values and perspectives inherent in conventional psychotherapy (such as emotional expressiveness).

As an important caveat, for the purposes of this paper only the directly relevant and most applicable concepts and methodologies within DP were applied in this particular endeavor. The entire discipline of DP provides many more concepts that have been applied to a wide variety of scholarly and practical enterprises.

Conclusion

Given the compelling current and projected demographic trends within the United States combined with the ethical imperatives, the essential inclusion of cultural competence training in the curriculum of graduate programs in clinical psychology has been well established. In fact, the American Psychological Association requires training programs to “recognize the importance of cultural and individual differences and diversity in the training of psychologists” as reflected by Domain D of the Accreditation Guidelines (American Psychological Association, 2008).

In order to provide effective education and training in cultural competence, the utilization of a conceptual framework, as opposed to a theoretical perspective, is preferred. The majority of the traditional and predominant perspectives about psychotherapy are culturally bound. Sue & Sue (2008) regard the “generic characteristics” of psychotherapy as being embedded within and inextricable from the dominant culture within the United States. Specifically, these “culture-bound values” include the focus on the individual, verbal/emotional/behavioral expressiveness, insight, self disclosure (openness and intimacy), scientific empiricism, distinctions between mental and physical functioning, ambiguity, and particular patterns of communication. While it is beyond the scope of this chapter to demonstrate all of the ways in which this perspective of “generic” ethnocentric psychotherapy is potentially harmful in some cultural contexts, the comprehensive critical analysis articulated from a DP perspective intends to build upon Sue & Sue’s thesis. Specifically, the analysis and recommendations described in this chapter provide a conceptual framework and pragmatic strategies that extend beyond being merely a response to the perspectives and values regarding psychotherapy that correspond to the dominant culture in the United States.

Since concepts have no “truth value” per se, utilizing a conceptual framework rather than a theoretical framework minimizes the cultural bias that is inherent in theories of human behavior. In

particular, DP is a conceptual framework that consists of a complex, comprehensive and precise set of interrelated concepts that articulate the grammar of the behavior of persons (Ossorio, 2006). As a conceptual framework that explicates the sense that persons *already make*, it lends itself quite naturally to multicultural psychology. In closing, the perspectives and methodology that Descriptive Psychology provide effectively preclude cultural insensitivity and ethnocentrism, at least in principle.

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Guilty or Not?

A Descriptive Psychology Analysis

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Abstract

Descriptive Psychology offers powerful conceptual resources to make the forensic evaluation of persons more responsive to questions of essential concern to the court and the human community. As an example of the effectiveness of Descriptive Psychology in forensic assessment, the basic facts of a problematic case are presented, followed by possible verdicts and questions that need to be addressed. A set of relevant concepts from Descriptive Psychology is introduced, and an analysis of the case is given using these concepts. The analysis shows the importance of focusing on *what* Deliberate Action the person engaged in, and demonstrates the power and effectiveness of a systematic, comprehensive approach to forensic evaluation using Descriptive Psychology resources.

Descriptive Psychology, a conceptual system developed by Peter G. Ossorio at the University of Colorado, is being used successfully by a growing body of forensic psychologists. Judges, lawyers, and the members of the law enforcement community who have been exposed to the concepts of Descriptive Psychology respect the power and clarity that the system provides for the assessment and evaluation of persons.

This paper provides an introduction to a few of the distinctive resources that Descriptive Psychology has to offer the legal

community. In order to illustrate the practical applicability of these concepts, the basic facts of a problematic case are presented, followed by the possible verdicts and essential questions that need to be addressed in the case. A set of relevant concepts from Descriptive Psychology is presented, and an analysis of the case is given using these concepts. The larger significance of the case formulation is discussed.

Basic Facts of the Case

The basic facts of the case are presented, as they were provided (cf., McKee, 1994), in the summary below. The reader is advised that these are the only facts that are known, and there are no other facts known that would grossly invalidate what is presented here. What is presented here was deemed valid and veridical to the extent known.

Ms. D, a 24 year old divorced mother of two children, was charged with the gunshot murder of her ex-husband. At 6:00 AM on the day of the shooting, Ms. D was preparing breakfast when Mr. D came to her house and threatened to kill her if she did not let him enter. In response to a neighbor's complaint of the noise, police arrived to find Mr. D shot three times in the chest and Ms. D holding a gun while sobbing silently. There were no witnesses to the event other than the defendant (Ms. D) and the victim (Mr. D). Ms. D was arrested, incarcerated, and charged with murder.

The D's five-year marriage ended last year as a consequence of his dependence on alcohol and drugs that led to frequent well documented physical beatings of Ms. D before and after the divorce. In the months preceding the shooting, Mr. D had told family and friends that he would beat, burn, and kill Ms. D. On one occasion, he broke into the house, stripped Ms. D naked, and hung her out of a second story window by her feet.

Subsequent investigations document that: (1) Ms. D had purchased the gun one week prior to the shooting; (2) had kept the gun and bullets in separate rooms; (3) had sex with Mr. D two nights before the shooting; (4) had filed a restraining order against Mr. D

the day prior to the shooting; and (5) her right hand was covered with a residue consistent with the discharge from the pistol she held at arrest. Autopsy revealed that Mr. D had been shot 3 times at close range, all wounds within a 2 inch circle. Ms. D was hospitalized for evaluation of her competency to stand trial and criminal responsibility (insanity) for the crime of murder. When interviewed, she initially spoke in the first person and then switched to a third-person account. She stated:

“I feared for my life. I ran from the back porch to go to the closet to get my gun. I was scared. Then, it seemed like I wasn’t there anymore, it was like... there was just my eyes, my nose, and my mouth floating up there in the air looking down at this little girl holding a gun. I felt so sorry for the little girl. I really wanted to help her but I couldn’t do anything; all I had was eyes and mouth, no body or arms.”

She then reported that something moved around the side of the house and:

“the little girl pulled the trigger and the gun went off. There was a loud noise. The sound of the gun woke me up. It was me standing there with the gun.”

Police and medical records indicated that Ms. D had a similar dissociative episode at age 14 when beaten and raped by a neighbor. Current mental status examination revealed a bright, articulate woman with an emotional and dramatic presentation. There was no evidence of severe mental illness (e.g., psychosis, organic mental disorder, bipolar disorder). Ms. D did report numerous somatic complaints including headaches and fainting spells, however, neurological and neuropsychological workups were within normal limits.

Possible Verdicts

Ms. D faces four possible verdicts: (1) Guilty of murder; (2) Guilty of manslaughter; (3) Not Guilty by reason of self-defense; and (4) Not Guilty by Reason of Insanity. To obtain a guilty verdict of either murder or manslaughter, the prosecution must prove beyond a reasonable doubt that Ms. D did in fact shoot Mr. D *and* had sufficient capacity to form the intent to commit the shooting. To obtain a verdict of Not Guilty by Reason of Self-Defense or Not Guilty by Reason of Insanity, the defense would concede that Ms. D shot Mr. D, but then must prove by a preponderance of evidence that Ms. D was in fear of her life (self-defense) or did not have adequate *mens rea* capacity (insanity).

Because the shooting occurred in a state that has adopted the Model Penal Code of the American Law Institute (cf., McKee, 1994), the following legal definitions are applicable to this case.

1. Murder is the unlawful killing of another human being in a purposeful and knowing manner.
2. Manslaughter is the unlawful killing of a human being either: (a) recklessly; or (b) under the influence of extreme mental or emotional disturbance for which there is reasonable explanation or excuse as determined from the viewpoint of a person in the actor's situation under the circumstances as he believes them to be.
3. Self-defense is defined as the right of protection of one's person or property against some injury attempted by another and generally is considered to comprise four elements: (a) the defendant is not the initiator of the altercation; (b) the defendant believes himself to be in immediate danger of unlawful bodily harm from his adversary; (c) the defendant's use of deadly force is necessary to avoid this danger; and (d) the defendant was unable to otherwise retreat from his adversary's deadly attack.

4. The defense of insanity is defined as follows: "... as a result of a mental disease or defect [s]he lacked substantial capacity either to appreciate the criminality (wrongfulness) of [her] conduct or to conform [her] conduct to the requirements of the law" (Grisso, 1988, p. 159, quoting the ALI (1962) Model Penal Code, Sect. 4.01).

Essential Questions

In light of the preceding definitions, a psychologist called upon to assist the court in understanding the case needs to address the following questions:

1. Did Ms. D act "purposely and/or knowingly," i.e., "purposely" in that she consciously desired her conduct to cause a particular result; and/or "knowingly" in that she was aware her conduct was practically certain to cause a particular result?
2. Did Ms. D act "recklessly" in that she was aware of a risk that her conduct might cause a particular result; *or* was she acting "under the influence of extreme mental or emotional disturbance for which there is reasonable explanation or excuse as determined from the viewpoint of a person in the actor's situation under the circumstances as (s)he believes them to be"?
3. Did Ms. D act in self-defense? Did she "(a) initiate the altercation; (b) believe herself to be in immediate danger of unlawful bodily harm from Mr. D; (c) use deadly force necessary to avoid this danger; *and* (d) was she unable to otherwise retreat from Mr. D's deadly attack"?
4. Were the acts of Ms. D insane: "as a result of a mental disease or defect she lacked substantial capacity either to appreciate the criminality (wrongfulness) of her conduct or to conform her conduct to the requirements of the law"?

Concepts from Descriptive Psychology

Several concepts from Descriptive Psychology are particularly helpful in understanding the behavior and basic facts of the case described above. Relevant concepts include Maxims 1 and 5; Person; Deliberate Action; Emotional Behavior; Emotional States; and The Face in the Wall. Each is presented below. The value of these concepts in illuminating this particular case including the possible verdicts and essential questions is subsequently discussed, while a fuller exposition of these concepts (available in Ossorio, 1985, 1997, & 2006) is beyond the scope of this paper.

Maxims 1 and 5

Descriptive Psychology provides a set of nearly one hundred Status Dynamic Maxims. These are warnings and reminders that might appropriately be given by one person to another in regard to describing persons and their behavior. The term “status” reflects that they are about a person’s “place” in the world; the term “dynamic” reflects their relevance to giving accounts of why people do what they do and don’t do what they don’t do; and their codification as “maxims” characterizes their form as warnings and reminders, particularly when some important failure or possible failure regarding the Person concept is at stake.

Maxim 1: “A person takes it that things are as they seem, unless he has reason enough to think otherwise.” This reminds us that there would be a logical infinite regress if we tried instead to adopt the skeptical alternative that “A person doesn’t take it that things are as they seem unless it can be shown that they are.” Of course as the maxim reminds us, if there were reason enough to think otherwise, then that’s how it would seem. This maxim in no way precludes a prosecutor, psychological examiner, or the reader from raising questions pertaining to the case and behavior in question. Rather, it reminds us that, both in reviewing and evaluating the facts of this case and in understanding the behavior in question, it is crucial to

stick to the facts and neither disregard the facts nor make anything up.

Maxim 5: “If a situation calls for a person to do something he can’t do, he will do something he can do.” This principle is relevant for understanding persons and behavior and especially, for explaining why a person doesn’t do what he might have been expected to do (or behave as he might have been expected to behave). Possible behavioral alternatives that are available to one person may not be possible options for another.

Person

As defined in Descriptive Psychology, “A person is an individual whose history is, paradigmatically, a history of Deliberate Action.” This contrasts with psychological theories and orientations that treat behavior as irrational or as if it merely consisted of observable or motoric movements. Descriptive Psychology, like the law, reminds us that fundamental to our concept of Person is the capability for deliberate action. It is not merely an expectation of behavior, but a social and legal requirement. Few people would argue with the principle that a person who either doesn’t know what he is doing or can’t control what he does is a danger to himself and others and needs some form of custody (Ossorio, 1985).

Deliberate Action

Ossorio (1985) writes:

In deliberate action a person engages in a given behavior, B; further, he knows that he is doing B rather than other behaviors which he distinguishes and he has chosen B *as* B from among a set of distinguished behavioral alternatives as being the thing to do. In the vernacular, we might say, “He knows what he’s doing and is doing it on purpose.” (p. 154)

Descriptive Psychology reminds us that if persons did not normally have the ability to distinguish what they were doing and to do it on purpose, we would not have the concept of person that we in fact do. However, it is important to clarify that Deliberate Action does *not* imply deliberation or prior thought about what to do, and, in fact, almost all deliberate action is spontaneous, unrehearsed, and unreflective.

Engaging in deliberate action is a special case of Intentional Action (IA). Descriptive Psychology provides a parametric analysis that enables us to articulate these concepts of behavior, and elucidate many important legal concepts including *actus reus*, *mens rea*, motive, etc. These were discussed in a related paper (Littman, 2010, pp. 409-430) and are summarized below.

The concept of intentional action is articulated not by means of a definition, but rather by means of a parametric analysis:

$$\langle B \rangle = \langle IA \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$$

The parameters of intentional action are the ways in which one particular behavior can be the same as or different from another behavior as such. In this formula,

- B Behavior (Instances of behavior are identified directly by locutions in ordinary language)
- IA Intentional Action (The technical designation for Behavior under the present parametric analysis)
- I Identity (The identity of the individual whose behavior it is)
- W Want = The “motivation” aspect of behavior (what state of affairs is wanted)

Ossorio (1972, p. 16) has noted that the motivational parameter is what conceptually defines the unit of behavior. When the state of affairs that is wanted becomes the state of affairs that is achieved, that behavior is ended.

It is also important that in situations with unintended consequences, the unit of behavior that the individual is engaged in,

as established by what he or she wanted, is probably different from that identified by a different Observer-Describer who is concerned with the (unintended) consequences. These distinctions will be discussed further in the case analysis and conclusion.

- K Know; the cognitive aspect of behavior, i.e., for a given behavior, what distinctions (concepts) are being acted on. This includes whatever relevant circumstances are distinguished. Anything that is wanted (W parameter above) will also show up under K since for something to be wanted, it is also distinguished.
- KH Know How; the competence parameter (This reflects the relevant learning history of the person whose behavior this is.) Ossorio (1972, p. 16) points out that “The function of the Know How parameter is precisely to exclude accidental happenings from the range of instances of intentional action.”
- P Performance; the process, or procedural parameter (Values are given by specifying a process, e.g., he pulled the trigger, or, he shot the arrow.)
- A Achievement; the result, or outcome (Values are given by specifying events and states of affairs.) This parameter “refers to whatever is different in the world by virtue of the occurrence of the behavior in question” (Ossorio, 2006, p. 46).
- PC Person Characteristics (Values are given by specifying characteristics of the person whose behavior it is and which the behavior is an expression of.) For example, his application to law school reflects his commitment to social justice, interest in law, adversarial style, ability to fill out the forms, etc.
- S Significance; this parameter codifies the “meaningful” and/or the “ulterior” aspects of behavior (Ossorio, 2006, p. 47). A person may be “doing X by doing Y”

where X is the significance of doing Y, and the doing or performance of Y implements X. This parameter may be used to represent a person's motive. For example, for two people playing golf with friends (Y), one's motive might be trying to improve his golf skills (X), whereas the other's motive may be to expand his insurance business (X).

The above parametric formulation provides a framework and resources for giving, and distinguishing among, various forms of behavior descriptions and enables us to elucidate various legal concepts.

For example, returning to the concept of Deliberate Action, it was noted above that this form of behavior description reflects that a person not merely distinguishes among behaviors but also chooses among them. The special case of Deliberate Action is represented as:

$$\langle B \rangle = \langle I, \langle B \rangle, \langle B \rangle, KH, P, A, PC, S \rangle$$

Deliberate Action Description

where the Behavior engaged in is also the behavior that was distinguished (K) and chosen (W) (hence the B also appears in the K and W parameters). The choice of behavior also reflects one's Person Characteristics (PCs).

Additional forms of behavior description are resources for elucidating other concepts. Several are mentioned in a related paper in this volume (Littmann, 2010) and in the case analysis.

For purposes of the Law, it appears that persons are viewed at a minimum under an Agency Description. The parametric formulation of behavior enables us to articulate that in an Agency Description, the parameters of behavior specified are W, K, KH, P, and A.

$$\langle B \rangle = \langle \Theta, W, K, KH, P, A, \Theta, \Theta \rangle$$

Agency Description

An Agency Description enables us to talk about someone engaging purposely in instrumental behavior, i.e., wanting, distinguishing, having the competence, and engaging in a process to

bring about some (desired) outcome. What is left out of an Agency Description is the Identity, Person Characteristics, and Significance parameters; that is, who did it, what person characteristics the behavior is an expression of, and what the person's motive was. As examples, consider a driver accelerating away from a police car that has just turned on its siren and blue light, or someone robbing an abortion clinic of \$500. An Agency Description of Behavior does not imply that these are the only parameters there are, but rather these are the ones, at a minimum, that I'm talking about. An Agency Description portrays the sense in which behavior is instrumental and the person is the agent of what he does. Descriptive Psychology provides resources for systematically distinguishing among different forms of behavior description via the various parameters of behavior, and may also help us elucidate various concepts.

Mens rea (the "guilty mind") is the actor's intent (or, in a broader sense as discussed below, his state of mind, and hence associated culpability) with respect to the particular act in question. Intent is given by the W parameter, and hence also appears in the K parameter, since one cannot want or try to do/get something if he or she cannot distinguish it.

$$\begin{aligned} \langle B \rangle &= \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Mens rea:} & \quad W, K \end{aligned}$$

(*Mens rea* is sometimes also used in a broader sense which will be presented as *Mens rea 2* below.)

A person's underlying motive is given by the S parameter.

$$\begin{aligned} \langle B \rangle &= \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Motive:} & \quad S \end{aligned}$$

Actus reus (the criminal act) is generally defined by overt, publicly observable variables: the activity engaged in (P), the outcome or result of P (A), and the presence of additional circumstances (K), which presumably the perpetrator also distinguishes.

$$\begin{aligned} \langle B \rangle &= \langle IA \rangle = \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Actus reus:} & \quad K, \quad P, A \end{aligned}$$

According to the law, a person is presumed to be legally responsible for his or her behavior if, at the time of the offense, the person was capable of voluntarily performing the act, *actus reus*, and capable of forming the intent to act, *mens rea*. Whether someone is “capable of forming the intent to act” appears to be a way of *ruling out* that a person was *impaired/ incapable* of making distinctions required under parameters W and K including the connection between P and A. A person charged with a crime might be considered impaired or mentally ill if (s)he were unable to understand that doing P brings about A.

It was also noted above that there is a second, broader notion of *mens rea*. This includes not merely the person’s intent to commit a specific crime (the W and K parameters), but also “a state of mind of general culpability or liability, an awareness of right from wrong” (Loewy, 1975). This seems to incorporate the parameter of the actor’s Person Characteristics (PC), and corresponds to his behavior under a broader Deliberate Action description. To establish the presence of a “guilty mind,” one needs to know what behavior the actor was engaging in. From the Actor’s perspective, what was he really doing?

 = <I, W, K, KH, P, A, PC, S>

Mens rea 2: I, W, K, KH, P, A, PC, S

Mens rea in the broader sense, corresponds to , according to the Observer’s description of the Actor’s behavior. It is more in this broader sense of *mens rea* that what is going on in my mind at the time of the crime may be relevant. (It may be noted that for some crimes known as “specific intent crimes” [murder being the most commonly known, but rape, arson, and any attempt crime also fall into this category], *mens rea* requires both the intent to perform the act and the intent to achieve a specific result. Crimes are defined differently in different states.)

Society has an important stake in persons being capable of deliberate action (distinguishing among behavior alternatives and choosing one as the thing to do). What someone wanted, what distinctions a person is making (including about the circumstances),

the person's relevant competence/learning history, a person's performance, the outcome, his/her person characteristics, and motives are all relevant in describing a person's behavior. In a related paper (Littmann, 2010) elucidating *actus reus*, *mens rea*, and legal issues related to exculpability, it was noted that to a large extent, the question of "Was the person guilty?" translates to the question of "What deliberate action was it?"

Emotional Behavior

An important contribution of Descriptive Psychology to our understanding of persons is its illumination of emotional behavior and emotional states. To specify a particular emotion (e.g., fear) is to identify a corresponding relation (e.g., X in danger of Y) and thereby to help illuminate the sort of reason a person has to engage in a corresponding behavior (escape or avoidance behavior) which reflects that relationship.

Contrary to some psychological theories, the Descriptive Psychology framework highlights the sense in which emotional behavior is fundamentally rational and that each emotion has a reality basis. To characterize a particular instance of behavior as "emotional" is to say that (a) an individual has made some particular discrimination, which (b) tautologically carries with it motivational significance (a and b amount to saying that an appraisal is made and appraisals are grounds for corresponding action); (c) the person possesses a learning history (competence) relevant to acting on that particular discrimination/appraisal; and (d) the person has a learned tendency to act on that discrimination/appraisal *without deliberation*. For example, as noted above, specifying the emotion *fear* identifies the relationship:

Danger → Avoidance/Escape Behavior
(elicits)

The appraisal of something as dangerous tautologically involves having reasons/motivation for escape or avoidance behavior (Littmann, 1979, pp. 28-32; Littmann, 1983, pp. 193-194).

The paradigm case for emotional behavior familiar to Descriptive Psychologists is the “Lion in the Room” (Ossorio, 1997). In this example, we imagine that I’m alone in a small room that has a door and either another door or a window. All of a sudden, a lion pushes open the door, sticks its head in the room, and makes growling noises. I either run out the other door or if there isn’t one, jump out the window. Another person watching from the distance asks, “Why did you run out?” And I say, “Because I was afraid of the lion.” The fear behavior is a paradigm case of emotional behavior.

What this example conveys is (1) that emotional behavior has a reality basis and (2) that being afraid of the lion and trying to escape the danger by getting away from it is quite rational. (It might be considered irrational if I did not attempt to escape from a danger I know to be life-threatening.)

Emotional States

What characterizes an emotional state is the discrimination of the reality basis for emotional behavior (e.g., danger), and the absence of successful emotional behavior (no means of escape) (Ossorio, 1997, p. 106). For example, I’m in a state of fear or panic if I appraise the danger (lion) but don’t successfully escape (there’s no door or window) or otherwise eliminate the danger.

The Face in the Wall

This heuristic from Descriptive Psychology illuminates the concept of psychological trauma and how being faced with an unthinkable situation changes our view of the world and our place in it. It is presented by asking you to suppose the following: We are meeting in my office and talking, when you notice out of the corner of your eye some movement in the wall behind me. As you look,

what you now see fully and directly is a huge, Easter-Island type face that emerges from the wall, looks around, glares at you, and then fades back into the wall. At this point, you have a dilemma. On the one hand, you could reject reality and think, “I just had the most interesting hallucination,” and you could dismiss what you saw by wondering if someone tampered with your lunch. But on the other hand, given what occurred, you can walk out of there knowing that the world you are in is a vastly different place and has no relation to the world you thought it was, and your place in it is totally unknown. This scenario of the unthinkable occurring conveys the nature of psychological trauma and the nature of a traumatic event (an unthinkable situation) in altering a person’s world and his place in it.

Case Analysis

In analyzing the case of Ms. D, it is presumed that the primary facts are those laid out in the summary and that there are no other facts that would grossly invalidate what is presented in the summary. We can of course entertain some hypothetical possibilities in regard to what is not stated or what is not known. The interviewer in this case has the task of evaluating how valid the information obtained is, but we presume that what is presented here was deemed valid and veridical to the extent known.

Thus, we assume that Ms. D is competent to stand trial, understands the proceedings, and we are told that she is bright and articulate with no evidence of severe mental illness. We are left to puzzle a bit over her emotional and dramatic self presentation and numerous somatic complaints including headaches and (mysterious) fainting spells. Though hospitalized for evaluation, findings are within normal limits.

When interviewed, Ms. D actually gives the entire account speaking in the first person. She does not dissociate during the interview, but does report a dissociative-like event or altered state of consciousness in the course of the confrontation with her ex-husband. There seems to be little doubt that she pulled the trigger

and the gun went off, though from her perspective at the moment of the shooting, it was the little girl who pulled the trigger. She does not attempt to conceal her own identity in this account as the person who “awoke” to find herself holding the gun. As the adult, she reports fearing for her life, running to get the gun, and being scared. She also reports being present in a helpless, sympathetic, seemingly disembodied Observer-Describer mode rather than as an actor or agent in charge of her own behavior during the confrontation with her ex-husband. The only similar dissociative episode we have knowledge or documentation of is at age 14 when she was beaten and raped by a neighbor.

The background information is crucial to understanding what behavior Ms. D was engaging in. She has two children and divorced Mr. D last year after a 5 year marriage. We know that his dependence on alcohol and drugs led to frequent, well-documented beatings, threats, and other abuse both before and after the divorce. He has recently and repeatedly continued to publicly threaten and humiliate her, and he has broken into the house recently and subjected her to clearly traumatic abuse (hanging her naked from a second story window by her feet).

On the day of the shooting, he is violating a restraining order issued the day before (which we presume he knows about). He appears at *her* house at 6:00 AM while she is preparing breakfast and again threatens to kill her if she refuses him entry. Given the seeming escalation and ongoing credible threats to harm her, it seems quite prudent of Ms. D to have purchased the gun for protection. Moreover, it appears prudent to keep the gun and bullets separate perhaps to avoid the chance of accidental injury.

Somewhat less clear are the circumstances of Ms. D having sex with Mr. D two nights before the shooting (was it forced, was the relationship on-again-off-again, or was there some other circumstance or explanation?). We may speculate that Ms. D may feel some ambivalence toward Mr. D whom she married when 18, was married to for five years, and who we presume is the father of the two children. We know she filed a restraining order against Mr.

D the day after they had sex (the day prior to the shooting). The facts of the case do not provide information about Mr. D's notification of the restraining order.

For him to have been shot in the chest at close range three times in a two inch circle, taking the facts as they seem (Maxim 1), he did not attempt to flee, and may have continued to approach her or attempt to enter as he had threatened. Although we do not know how rapidly the shots were fired or how quickly it became apparent that Mr. D was fatally wounded, in regard to the question of what degree of force was needed to defend herself, had Mr. D turned away or dropped immediately, it is probable that the shots would not have landed in a two inch circle. We know the police arrived in response to the neighbor's complaint of noise, but we do not know whether this was from commotion of Mr. D threatening to kill Ms. D and demanding to enter or from the gunshots. We know that after he demanded entry, Ms. D reports she ran to get the gun, and by the time the police arrived, Ms. D was (still) holding the gun and sobbing silently. The facts indicate that Mr. D was shot at close range, suggesting that her options were limited at that point to defend herself from his threats to kill her. We do not know how he got so close. For example, we do not know whether he saw the gun but was not deterred (perhaps he didn't think she would actually fire or thought she might miss) or he was too angry, intoxicated, or otherwise drug impaired to stop and desist. Or, she may have hesitated to shoot until he was close. The issue of her good marksmanship is somewhat irrelevant, in that all hits were at close range. If a prosecutor were to contend hypothetically that Ms. D approached (rather than retreated) from Mr. D, the facts remain that she did not initiate the altercation since he came to her home demanding entry and threatening to kill her. Moreover, she knows from repeated experience that attempts to retreat are futile. Regardless of whether she is experienced or inexperienced in using a gun, we might expect her fear and anxiety to increase as the threat escalated. Yet, based on the two-inch circle, it also appears that her action is under control. She is not firing wildly.

Under the law, Ms. D has the right to protect herself and her property against injury; she did not initiate the altercation; she most reasonably believes herself to be in immediate, life-threatening danger from Mr. D (he has made threats of harm and acted on them); and past attempts to retreat or flee from the attacks have been futile (he has broken in and subjected her to harm). It may be argued whether the force used to defend herself was proportionate to the danger, e.g., whether one shot versus three were required. However, there appears to be sufficient evidence that Mr. D's actions and threats to harm and kill Ms. D were escalating and that use of deadly force was necessary to avoid this immediate life-threatening danger. It appears that Ms. D has legal justification for self-defense. In regard to the essential questions, the grounds for self-defense have been met.

Above and beyond confirming her grounds for self-defense (which would make her behavior not a crime and excuses her under the law), what might Descriptive Psychology offer to our understanding of various issues raised by this case and Ms. D's unusual behavior? Is there potentially a case formulation that demystifies her behavior and provides a coherent explanation that's not only consistent with the facts that are presented, but sensibly ties them together? Such case formulations particularly might help expert witnesses present illuminating consultations and testimony, and might help prosecutors better decide indictments, defense attorneys articulate defenses, and help juries and judges get a clearer picture of the behavior(s) in question in order to decide the matters at issue.

For example, how do we understand the account Ms. D gives when interviewed about the incident? Is she malingering a dissociated state, and what would be her purpose for doing so given that she is entitled to defend herself from Mr. D's threat on her life while he is violating a restraining order? Alternatively, if we take it that she is not malingering, what accounts for the unusual state Ms. D describes, as opposed to someone simply killing an attacker in self-defense?

As noted above, Ms. D most reasonably believes herself to be in immediate, life-threatening danger from Mr. D who has previously made threats to harm her and acted on them. Past attempts to retreat or flee have been futile, and he has subjected her to harm. Ms. D lacks viable alternatives much as the person who is faced by the lion would jump out the window to escape the lion, only here, there is no “window” for escape. This indeed generates a *state* of fear. (Recall: “The main thing that causes an emotional state is the discrimination of the reality basis for emotional behavior, and the absence of the successful emotional behavior.”)

Thus, there is no escape, nowhere to retreat. Her dissociation is an indication that she is unable to simply shoot the lion, or in this case, the polysubstance-dependent, abusive attacker-ex-husband father-of-her-children. To Ms. D, this is apparently an impossible position where she is faced with two nonviable choices: either be killed or kill him.

The situation corresponds to the description of “psychological trauma.” A person who is faced with an unthinkable situation which *is* actually occurring (cf., *The Face in the Wall*) finds himself in a vastly different world than he thought it was. If this is how the world is, your place in it is totally unknown, and you don’t have your usual basis for acting in any way, yet immediate action is called for here. This appears to be a clear case of Self-defense in a most literal sense! Ms. D was both acting in her own defense by shooting the gun, and the dissociative episode evidently was essential to enabling her to implement her self-defense which she was otherwise unable to do, being who she is (cf., the sort of dilemma where, “I couldn’t do that and still be me”).

Being who she was, Ms. D was able to formulate a defense plan by purchasing a gun, so presumably, shooting Mr. D was not unthinkable for her. However, at the time of the incident, it appears that it was unthinkable to actually pull the trigger and shoot Mr. D; yet neither could she risk being killed or suffering the abuse she had been subjected to previously. As Maxim 5 states, “When a situation calls for a person to do something he can’t do, he will do something

he can do.” The only way she could pull the trigger/defend herself was by virtue of the dissociated state. (Recall: Ms. D states, “I felt so sorry for the little girl. I really wanted [W] to help her but I couldn’t do anything.”) In the dissociated state, Ms. D was able to successfully defend herself; “the little girl” had the status/eligibility to pull the trigger. (Quite possibly, in light of Ms. D’s history of being beaten and raped when she was 14, “the little girl” had the right to defend herself whereas Ms. D could not justify herself killing her ex-husband and children’s father.)

(An alternative description of this altered state is also presented in the section below.)

Further Analysis and Discussion of Alternative Verdicts

Regarding the verdict of Murder: It appears that Ms. D did shoot Mr. D in a purposeful and knowing manner, but it was not “unlawful” because the Law allows for self-defense.

Her *purpose* (what she wanted) was ‘to defend herself’ and ‘to stop the threat on her life’, *not* ‘to murder her ex-husband.’ Additional evidence for this is that the consequence of ‘killing her ex-husband/father of her children’ apparently was sufficiently unthinkable at the time of the required action that her dissociation was the only way she could implement the behavior of self-protection. She could not, within her self-concept as Ms. D, pull the trigger. She *could* form the intent to protect herself (W and K). Consistent with this analysis is that the “police arrived to find...Ms. D holding a gun while sobbing silently.” She is certainly not jubilant or defiant; she appears to understand the outcome that has occurred (Mr. D shot and possibly dead), and in her account, she states, “It was me standing there with the gun”; nothing in the information given suggests that Ms. D was eager to act in a way that harms Mr. D, but rather was reluctant and only willing if there were no alternative to save her life. Shooting/killing him does not appear to be what she wanted. (This does not

alter the legal grounds for self defense, but it may help illuminate what she was up to.)

What further clarification might Descriptive Psychology offer to illuminate various issues that pertain to the other possible verdicts?

With respect to the verdict of manslaughter, we can note that: Only under a non-Deliberate Action description, Ms. D has killed Mr. D, and thus, that is not the *deliberate action* she was engaged in.

Deliberate Action Description: <I, , , KH, P, A, PC, S>

Again, self-defense or to stop him from killing or harming her (her motivation/W) is permitted by law (provided the belief that he will kill her is reasonable, the use of force is proportionate, etc.). An unintended consequence of defending herself is that she killed Mr. D. While unintended, it is not a violation of a community standard. Given the circumstances, her behavior is not “the unlawful killing of a human being.” (It may be noted that even had she intended to shoot and kill him and had the dissociative-like episode not occurred, her behavior, as self-defense, under the circumstances given, would be justified, albeit the defense attorney might approach this slightly differently, and the case formulation would be somewhat different. But those are not the facts of this particular case.)

Moreover, her behavior is not “reckless” in that she intends the consequences of stopping the threat. (Mr. D’s behavior may be reckless in ignoring the restraining order, but this is a separate matter.) Although it may be of interest to explore Ms. D’s state of mind, it is superfluous to this verdict. She may indeed be acting “under the influence of extreme mental or emotional disturbance [or at least distress] for which there is reasonable explanation or excuse as determined from the viewpoint of a person in the actor’s situation under the circumstances as (s)he believes them to be,” but her state of mind is irrelevant since self-defense is lawful, and a verdict of manslaughter has to do with “unlawful killing of a human being.”

Regarding the verdict of insanity: Ms. D’s acts were not insane; they were *highly* rational. To *not* defend herself would have been a reflection of impairment. Facts of the case indicate there

was no evidence of severe mental illness, and neurological and neuropsychological workups were within normal limits. There is no evidence that she does not know right from wrong. There is no evidence that the welfare of anyone in the community was at risk, other than her ex-husband who was violating a restraining order and threatening to kill her. She is not impaired to an extent of being unable to protect herself. It appears that the altered state *enables* her to act to defend herself. Is she out of control? Autopsy revealed that Mr. D had been shot 3 times at close range, all wounds within a 2 inch circle. She is not firing wildly. Based on the facts, she does not appear to have been out-of-control; she appears to be *in-control* of her behavior at the level of escaping the danger. She is doing that *by pulling the trigger*. Ms. D does not have a record of dissociations which impair her functioning; there is only one known previous episode of dissociation ten years ago when she was beaten and raped by a neighbor.

The current episode might alternatively be assimilated to the type of altered state people describe in a car accident or other traumatic disaster where one's sense of time is altered and one has the sense of being an observer rather than actor in the moment. This also parallels the experience that athletes have when playing "in the zone" with complete focus and seemingly effortless execution of performance—as if watching their body perform from the Observer's role, rather than exercising control over it from an Observer-Critic perspective. Control is exercised by Ms. D at the *Significance* level of protecting herself, and the dissociated-like state frees her to implement her self defense by pulling the trigger.

Conclusion

The appropriate Deliberate Action description of what Ms. D was doing is "She defended herself by pulling the trigger and shooting him" rather than "She murdered him by shooting him." This is a case of unintended consequences in that what she wanted was to defend herself, not to kill Mr. D. Self-defense is not unlawful. The reason

her emotional state does not suggest a mental illness, mental defect, or mental impairment is that her action is the obviously appropriate thing to do. She is not out of control from the larger perspective of managing her life in a prudent, reasonable manner. She took what action appears to have been the only way to save her life. Mr. D's record of violence and lack of restraint gave credence to his threat of killing her, and she had good reason to fear for her life.

Several concepts from Descriptive Psychology have been presented that help illuminate the behavior described in this case and several of the legal concepts and distinctions that are relevant. A psychologist providing expert testimony to the court need not explain each technical aspect presented here, but the distinctions and framework are nonetheless valuable for analyzing, understanding, and describing the relevant points to be made. In particular, it can help us avoid popular mis-steps, such as, presuming that emotional behavior is irrational or out-of-control. Many of the distinctions from Descriptive Psychology seem to resonate with Judges, attorneys, and law enforcement officials owing to the clarity it brings to understanding a variety of complex cases.

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Author's Note

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Jane R. Littmann, Clinical Professor and Teaching Psychologist, retired from the Department of Neuropsychiatry and Behavioral Science, University of South Carolina School of Medicine and the William S. Hall Psychiatric Institute in 2006.

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Oriental Martial Arts Rehabilitation

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Abstract

The rehabilitation options for people who are disabled with moderate to severe traumatic brain injuries, often accompanied by spine and other severe physical injuries, are very limited. In response to the needs of this population, the author has developed OMAR (Oriental Martial Arts Rehabilitation), a pragmatic program for rehabilitation based on the oriental martial arts and status dynamic concepts derived from Descriptive Psychology that are intended to increase Behavior Potential. Some of the resources from oriental martial arts that are used as components of OMAR are briefly described, and an understanding of the severely disabled in light of status dynamic concepts is presented. A description of OMAR with a group of clients with moderate to severe TBI and/or spinal cord injuries is presented, and its applicability to other settings is explored.

This chapter will describe three important considerations in the decision to apply Oriental Martial Arts (OMA) to rehabilitation efforts on behalf of persons with moderate to severe injuries. First is the prototypical situation (and thus world) encountered by individuals who have suffered serious traumatic brain injuries often accompanied by spine and other injuries. Second is a description of a clinical program for treatment of these conditions conceptualized from Descriptive Psychology as a dramatic loss in behavior potential and implemented via Oriental

Martial Arts Rehabilitation (OMAR). Third, preliminary data on the benefits of such a program for one group of aftercare clients are provided, and ideas for research to evaluate the efficacy of the program will be identified.

The World of the Newly Injured Person

Imagine that you are driving home from work and are involved in a serious motor vehicle accident. When you wake up, you find yourself unable to move and are told that you'll never walk again. You don't believe it. You're 25 years old and never thought this could happen to you. But over time you find that you still cannot walk and continue to have very limited use even of your upper extremities; you have a urine bag attached to the side of your wheelchair; you develop bed sores easily; and you need to take ten different medicines each day. You are told that you have a moderate to severe traumatic brain injury (TBI). You have a tough time remembering things or even talking to people; you are not "all there"; and you are treated as one with impulsive and potentially dangerous behavior. Your losses in functions resulting from the spine injury were rather immediate, recognized within days and weeks of the event, but your losses related to your brain injury unfold over a much longer period.

After you have transitioned from acute medical care to the rehabilitation hospital and then transitioned to placement back into the community, your treatment slows down dramatically or stops. You are told that your brain will stop healing after one and a half or two years, no matter how hard you try, and that your gains will be limited from there on in and you have to accept this new status. You may be considered a social services problem, and you will likely receive some subsistence maintenance, e.g., through Social Security or emergency aid, but your rehabilitative treatment for the most part is over. All or most of your insurance has been used up by the acute phases of care, and there is little left for further rehabilitation. You are facing indigent financial and health maintenance care for the rest of your life. You question how much your life might change for the

better, and then ask yourself “What is this world of mine?” in light of such uncertainty. The long-term resources and options available to severely disabled people with brain and spine injuries are extremely limited.

Among rehabilitation health care professionals serving survivors of severe injuries there exists considerable consensus that the recovery period is quite variable, and neither the time to recover nor the extent of recovery from that event can be predicted on the basis of the severity of one’s physical injuries alone. At this juncture, where would you go for help? What kind of help would you seek out and what path would you want to follow? In response to the ongoing needs of this population, OMAR (Oriental Martial Arts Rehabilitation), a pragmatic program for rehabilitation based on the oriental martial arts and status dynamic concepts, was developed.

Oriental Martial Arts

The Oriental Martial Arts (OMAs) developed along distinctive paths, most notably in Japan, Korea and China, with meditative and other teachings originating in India, and Chinese Mahayana Buddhist priests disseminating these and their own teachings to Japan and Korea and other countries of the orient. These were developed according to Chinese philosophy emphasizing such values as respect for one’s teacher, and the importance of following “the path” espoused by one’s teacher, and harmony within the social order. Over the course of more than a thousand years, each of these countries developed their own OMAs according to their individual needs and cultures, and many of these OMAs have proven effective for various applications, most notably in preparation for combat and actual combat (Draeger, Donn. & Smith, 1980). The OMAs have been brought to the Western world in various guises and with relative emphasis on mindfulness and focus vs. fighting and self-defense. But among the various martial arts disciplines practiced throughout the orient, most notably including those indigenous to Japan, Korea and China, there exists a high level of commonality in the thinking

and practices based on the common roots of these cultures in the teachings of Confucius and Tao emphasizing the importance of such values as mutuality and respect, especially honoring and respecting one's teacher, and abiding by a well circumscribed social order. In this chapter, important teachings and components from each of the OMAs can be applied beyond the purposes of teaching competition, fighting, and self-defense and turned instead toward the tasks of rehabilitation psychology.

A personal note

As a young Japanese child growing up in the U.S. in the 1950's, as a Mudansha (martial arts student), I was taught the wazas (martial arts techniques) of Kodokan judo by the first and second generation Japanese senseis (martial arts teachers) released from the "relocation camps" after World War II. These techniques were taught for relaxing our minds and bodies, through appropriate breathing; visualizing our wazas for use against our opponents; meditating; and doing our Kiai's (yelling from the abdomen with strength) for the purpose of conserving energy before competition and enhancing fighting skills. In practices, each night my fellow Mudansha and I engaged in stretching out and calisthenics routines, followed by hundreds of repetitions of our wazas, or techniques, which included the use of guided imagery and visualization, plus vigorous free style workouts in which we tried out these techniques. Our senseis were constantly reminding us to breathe properly and maintain good posture as we practiced our wazas. Our ending routines following these workouts would include Tai Chi and other stretching out and cooling down movement routines, followed by brief group meditations in which we reviewed in our minds what we had learned that evening.

Mental and physical toughness were encouraged, and if we complained about hurting somewhere, after the sensei quickly assessed that the problem wouldn't be exacerbated by further exertion, he would say "I don't see no blood" and tell us to get back to practice (while they would discretely ensure there were no real injuries) and the pain would almost invariably go away, likely

creating an association in most of us between exercise and having less pain. The underlying unspoken message was that it is better to approach life with strength than weakness. We had to practice our wazas over and over again, correctly, so that we could increasingly complete combinations of movements automatically, without thinking, relying on muscle memory.

The sensei never asked “How do you feel?”, and we were scolded for engaging in any chatter unrelated to our task at hand, so that we could become better judokas, or judo players. Neither the Mudansha nor their parents ever criticized or argued with the sensei, and losing your temper and verbally or physically acting out of anger or frustration were unthinkable and grounds for dismissal—for the evening, from the club, or even from the sport itself. Winning was important but the message was that winning was not everything; if we engaged in bad behaviors at, or away from the dojo, even in other areas of our lives having nothing to do with the martial art, we were aware that this could bring shame to the club.

From the earliest age, we were aware that each of us was part of a larger social order, not just when working out or competing, but at all times, e.g., bowing in and out to the dojo (practice hall), practice mat, or opponent—all as a matter of respect. As we received our promotions, marked by new color belts and often accompanied by certificates signed by the sensei, we were told, “With promotion comes responsibility,” and with that promotion, particularly at the level of brown belt or above, the Mudansha almost immediately acted more confident and focused. We were taught techniques effective for keeping our minds focused, calm, and centered, and our bodies strong and well-rested, and controlling our minds and behaviors accordingly. This was all taught to us in an integrated, step-by-step, and comprehensive manner by our senseis in judo whom we respected and honored in our humble and deferential roles of Mudansha who knew little but were eager to learn “the way”, and to be shown “the path”. These were some of the norms and rituals we Mudansha lived under at our club, and within our specific martial

art, but it was not so dissimilar to the thinking and routines practiced at other clubs across the orient and throughout the world.

Based on my prior training, interest and experience as both a sensei and as psychotherapist (giving me the relevant competencies to be a Sensei-therapist), I believed that the thinking and practices of the martial arts could be used to help serve survivors of traumatic brain and spine injuries as well as those with psychological disorders related to anxiety, depression, dissociation, and pain. Traditional psychological therapies have been found to offer some, but limited, benefit to severely brain injured individuals, and many such individuals are resistant to “psychological” remedies. After all, their problems are physical, not mental.

Applications of OMAs to rehabilitation

A literature review on the application of martial arts to rehabilitation from physical and psychological illness revealed about 50 articles with references to one of the OMAs but these papers, by and large, had limited development of the rationale for such therapeutic uses and incomplete specification of the components of a comprehensive approach to using the marital arts in a rehabilitative mode. In this chapter we intend to provide both—a detailed description of the OMAs and a rationale for their application to rehabilitation with spinal cord and TBI survivors.

Among the studies and case reports to date are a few that have evaluated some sort of OMA as a therapeutic technique to enhance the well being of those with chronic conditions such as destructive aggression and violent behavior (Twemlow & Sacco, 1998; Twemlow, Sacco, & Fonagy, 2008), epilepsy (Conant, Morgan, Muzykewicz, Clark, & Thiele, 2008), severe TBI (Shapira, Cherlouche, Yanai, Kaner, & Szold, 2001), multiple sclerosis (Husted, Pham, Heklking, & Niederman, 1999), and severe cervical stenosis (Massey & Kisling, 1999). The results of these few studies suggest that such treatments hold some promise, but the studies suffer from small

numbers of subjects, lack of controls, and failure to specify the important treatment components.

Important Components of OMA in Rehabilitation

Understanding the essential components in OMAR is important. Most of the components and thinking utilized by OMAR represent commonalities among the various oriental martial arts which allow therapeutic approaches incorporating the use of OMAR to transcend old thinking and barriers to effective utilization for rehabilitation purposes. Whether the OMA discipline is Chinese Kung Fu or Japanese Aikido is of less relevance than the quality of the sensei, and ability of that sensei to serve the rehabilitative needs of a particular group through the application of that discipline's thinking and techniques. Rather, my focus in developing OMAR has been to identify and include tools and techniques that contribute to increasing behavior potential. These social practices include:

Posture. One cannot attain proper breathing or practice the wazas (specific routines) of the OMA without first learning proper posture. The Mudansha-client is instructed to sit on the front edge of his chair or wheelchair without back support, back and head held straight up but with shoulders dropped and relaxed, sinking into one's hara (abdomen), knees apart and hands resting palms up on one's legs. In OMAR the postures most frequently used involve sitting in a chair but also include the ground positions of seiza (the formal position of sitting at attention), and anza (cross-legged in what Americans refer to as the Indian position).

Breathing. Abdominal breathing common to most of the OMAs, a variation of Japanese Fukushiki Kokyu breathing, is also known as "nighttime" or "baby" breathing. This is the basic form of breathing common to most of the OMAs, slowly and steadily in through the nose and slowly and steadily out through the mouth in order to maximize one's energy and ability to sustain the performances required for workouts and competition.

Mokuso Meditation. The purpose of meditation is to empty one's mind and be able to focus on one thing. Mokuso is a brief form of meditation traditionally practiced at funerals and at the conclusion of martial arts classes, sitting on a chair or on the floor in seiza with one's eyes nearly closed and looking down at a spot in front, with eyes allowing only a sheen of light, with Mokuso meaning to be mindful of the person who passed away, or of something you learned in class. As one learns the proper posture and breathing required for relaxing one's mind and body, and then engages in the various OMAR exercises, one learns how easily one is able to enter into a meditative state. As one sensei often tells his students, "With proper posture and breathing, it is almost impossible not to meditate" (Schechter, 2007).

Stretching out procedures. The stretching out routines used in OMAR involve the upper body above the waist, derived from the paradigm of a traumatizing car accident, hands on the steering wheel with mind and body "frozen" in time and space at the point of the trauma, with accompanying "muscle memory" of that event. These techniques, proceeding from hands to neck, begin with the hands (hand mirror, stop, fingers pull back), to upper arms across the chest, backward and forward shoulder rolls, to the neck turtle stretches out of the shell, to riding the horse; they follow posture and breathing but come before attempting the Kiai.

Kiai. To yell from the abdomen with strength, inner strength; used in combat in the OMAs to completely focus one's mind and body on a single point in time and space; used psychotherapeutically to help clients become unstuck or unfrozen from their post-traumatic states of fear, anger and anxiety. When this is performed properly with force from the abdomen 5 to 10 times, clients will typically sweat or have a sheen on their skin from expelling the heat out, report feeling light-headed, or even dizzy, and 5 minutes later shrug their shoulders, and be able to say "I don't care, this is not my fight." Benefit is also reported from the use of the "Silent Kiai" for those who have difficulty yelling out, particularly women, or others, who

may not be able to practice their loud Kiais at home, in their cars or in other settings accessible to them.

Tai Chi. Such movements are taught and practiced throughout Asia and used in many of the OMAs as cooling down routines following vigorous workouts. I typically teach and use three Tai Chi routines including “moving the rock,” “forward stretching,” and “double breathing.” These follow the talk therapy portion of my sessions, which deals with strong emotional states such as fear and repressed anger, and find these effective in helping clients get “unstuck” or “unfrozen” between mind and body.

Manners, etiquette, aesthetics and conduct. The OMAs are typified by their adherence to rituals and traditions emphasizing mutuality and respect, self-control and recognition of a social order beyond one’s personal aggrandizement and accomplishments. Samurai mastered calligraphy, the tea ceremony, the folding of robes and other arts to increase focus and mind control, and followed a strict code of conduct, following “the way of the samurai.” In modern times, sensei and Mudansha alike bow to each other and to the mat and entrance to the club demonstrating humility, appreciation and mutuality showing they are a part of a larger social order. Talking about these various concepts in the didactic portions of each session increases the sense of connectedness between the client and the larger community in which they aspire to become fully-fledged members.

In addition to the specific techniques described above, important procedures and practices are necessary. These include the ordering and sequencing of routines, (e.g., the necessity of learning some procedures before others) and the importance of practicing the wazas repeatedly so that the Mudansha-client can “own the wazas” and therefore have them available permanently. Mudansha-clients can learn and begin using the meditation before learning the full stretching out procedures even though they cannot expect to get full benefit from this thinking and these procedures until learning and using the stretching out routines, and Kiai.

Although a rationale can be given within the martial arts perspective for the potential effectiveness of OMAR, it is important to give readers a perspective from within a psychological world view with particular focus on the potential applications of these procedures and ways of thinking to rehabilitation psychology, specifically using status dynamic concepts from Descriptive Psychology. (For more information on status dynamics, see Ossorio [1976, 2006a]; and Bergner [2007].)

A Status Dynamic Analysis

I am not only a life long student-teacher of one oriental martial art and student of another, I have also been a licensed clinical psychologist in private practice for more than twenty five years who for more than twenty years has specialized in matters of rehabilitation from physical and psychological trauma. I have considered myself a status dynamic therapist during my time in clinical practice, and I had the privilege of studying with the late Peter G. Ossorio, who was my dissertation advisor and supervisor for licensure.

It is possible to understand persons with acquired TBI, other physical injury, and/or psychological disorder using status dynamic concepts. Survivors typically live in a world in which they have significant limitations and restrictions on their Behavior Potential (BP) with BP defined as the ability to meet one's Basic Human Needs. They have experienced a life altering "event" which has resulted in significantly reduced Behavior Potential (BP), which operationally and status wise, is the disability. This event by definition results in significant restrictions on the ability to engage in the Social Practices available to them in their community, resulting in significantly restricted Behavior Potential, and a significant loss of Behavior Potential which over a period of time results in a pathological state or disability (see Table 1 for the General Model of Acquired Disabilities underlying this approach).

The basis for this disability can be physical, psychological or a combination therein but by definition is associated with a significant

loss of Behavior Potential. Especially in the case of the moderate to severe TBIs and spinal cord injured, these losses for the most part are considered permanent and irreversible losses of Behavior Potential. Examples of the things that survivors cannot do often include driving or driving only with a special apparatus and new license. Such individuals often require considerable assistance in getting dressed, in bathing themselves, and in the handling of elimination. Many things that they took for granted prior to their event now seem impossible or very difficult to accomplish. For those with primarily a psychological disorder, the loss of Behavior Potential may involve not being able to keep a job, inability to maintain close relationships (e.g., conflict, divorce, and isolation), or performing poorly in school because of problems concentrating.

What OMAR provides

The status other people give survivors does not put them in a good place, and in fact can leave them close to nowhere. Following disabling TBIs, high rates of divorce, drug and alcohol abuse, social isolation and reliance on social services are seen (Brooks, 1984; Ponsford, Sloan, & Snow, 1995; Sherer, Madison, & Hannay, 2000). The system available to the moderately to severely disabled is for the most part a closed system, with almost no way out. Pre-accident, these clients occupied a place in the world in which they were strong and independent, able to act and function actively in a broad world; post-accident, they have become weak and dependent and find themselves passive recipients in a world of nurturance and caring. Metaphorically, these clients may return to needing their mothers again in ways previously not considered. Furthermore, there is the practical reality that entitlements are usually contingent on being continuously disabled, and if an individual can do more, benefits could be endangered.

To remain eligible for the benefits that go with being disabled there are clear roles for the disabled to play and strong sanctions for those who don't play their roles. If the client gives up the role of

helpless invalid, e.g., attempts to be more independent, he/she might fail (for example, in falling down and “making more problems”), resulting in the new status assignment of “trouble-maker”, a person with the really bad attitude—possibly a personality disorder, and, perhaps as even incorrigible.

The goal of OMAR conceived in status dynamic terms is to make real changes in the potential for behavior that survivors have in their worlds. They should end up being able to do things that they could not do at the beginning of treatment, and they should see themselves in a different light—not merely as disabled and injured but as having a status from which they have some control over their lives and some ability to participate in the social practices of their worlds. Survivors can be taught “the way” to maintaining a sustainable path for status change/transformation to reconstruct their world, a path which they can sustain in the face of various attacks, setbacks, and temptations. They need to have descriptions of their worlds accessible to them, acknowledging unknown behavioral possibilities, worlds which give them a viable place.

In light of this status dynamic understanding, the therapist looks at the ways we create a world, a world which gives ourselves, and others, viable places in it. The Sensei-therapist uses the metaphor and imagery of a warrior to achieve a transformation in the client’s world by increasing the possibilities that s/he has in that world. The outcomes are real world transformations; as such, they are the essential tools of this therapeutic intervention. The Oriental Martial Arts Rehabilitation approach provides the Sensei-therapist with greater access and leverage to the extent that it adds a dimension of greater reality compared to other forms either of talk or of exercise alone.

Kiai, to yell from the abdomen with strength, or inner strength, is a behavior that encompasses the thinking and practice common to many of the OMAs. From the perspective of the complete lay person without any experience or familiarity with the OMAs, it might well be assumed that the purpose of the Kiai, like any kind of yelling, is either to scare one’s opponent, or for its cathartic value of releasing

repressed emotions and letting it all out, like any old scream. From the perspective of a traditional psychotherapist, the Kiai, viewed as a scream, may be acknowledged as bringing temporary relief and good feelings but may question the exercises' therapeutic value to the extent that engaging in screaming and other cathartic exercises, like breaking dishes, may be associated with long-term increases in violent ideation, aggression and loss of control. From the perspective of an OMA sensei, the Kiai must be mastered because it provides a better focus of one's mind and body, and one's energy, on a specific point in time and space in order to maximize one's complete focus on the task at hand, for example, while initiating a strike or a throw. From the perspective of the OMAR Sensei-therapist, based on his or her dual training, and roles in the martial arts and in mental health, and able to rely on the requisite judgments and sensitivities that the Kiai, with training, can be a powerful clinical tool for treating various psychological disorders, particularly those associated with strong negative emotional states such as traumatic fear and repressed rage.

The Sensei-therapist, in showing "the way" forward, teaches the Mudansha-client that using the Kiai as part of a general, systematic, and integrated rehabilitation curriculum can, when mastered through instruction and practice, help one become strong again. The result is getting back on the path to regaining one's lost behavior potential. The Kiai can also prove clinically useful as an alternative to ingesting prescribed tranquilizers or other psychotropic medications, or attempts to "self-medicate" through the use and abuse of alcohol and illegal drugs.

As the Sensei-therapist, status intervener, it is important to recognize that the survivors cannot play the parts they used to play but a significant intervention is to make it real for them to do what they *can* do—which is a lot different from the society they are used to dealing with that often casts them as hopeless and helpless invalids. Clients learn to contrast that role, the status assignment of the hopeless invalid, with their performing what they can do as

survivors, the part of Wounded Warrior—wounded, but nonetheless still a Warrior.

OMAR

OMAR (Oriental Martial Arts Rehabilitation) is a clinical program for rehabilitation based on the oriental martial arts and grounded in the status dynamic understanding of Descriptive Psychology. The role and status of the OMAR instructor is that of a Sensei-therapist, one who heads clients in the right direction, on “the path” of taking control and instilling hope and confidence by giving the tools, teaching “the way” to help them achieve increased focus and control over their mind and body. The explicit goal of mind and body unification, or coordination, is a critical concept within the traditional OMAs (Tohei, 2001; Iedwab & Standefer, 2000). The Sensei-therapist works with survivors who are seeking ways to continue their rehabilitation on their own. OMAR brings to Mudansha-clients a re-integration of the body and mind that results in increased Basic Human Need Satisfaction and therefore increased Behavior Potential (BP). The program is designed to establish a basis for measured increases in levels of genuine competency and self-worth by focusing on what Mudansha-clients can do, rather than what they cannot do. The Sensei-therapist’s overriding message is that it is better to approach life with strength than with weakness. If Mudansha-clients are motivated to learn “the way”, there is the implicit promise and expectation that they will become able to do more than they can now do, and in some cases may even end up doing things no one, including themselves, thought possible. OMAR applications explicitly refute the victim role, explaining that regardless of the circumstances of their trauma or how much they have lost, embracing a victim status may entitle them to a pity party but ultimately has no future and no positive path (Bergner, 1973). Clinically, the Sensei-therapist recognizes that Mudansha-clients are stuck, at times even frozen, and need to learn “the way” and get on “the path” toward getting themselves unstuck, or unfrozen.

The role is not to coddle; rather, this role is an archetypal one that focuses on regaining what was lost (“You were defeated and now you must recover and return to your previous status”). The Sensei-therapist instructs the Mudansha-client survivors in the ways to recovery by teaching how to control one’s mind, reducing scattered and undisciplined thinking, and mastering techniques which will make both the mind and body stronger and more relaxed, allowing for optimal recovery and functioning. Clients often complain about losing the “taste of life” or of having lost their life force or spirit; one of the goals of OMAR is to assist Mudansha-clients to regain this life force by focusing simultaneously on their emotional, spiritual, and physical rehabilitation. Clients will often report feeling mentally and physically “stuck” or “frozen”, and it is critical that the Sensei-therapist’s intervention be formulated around showing them “the way” to getting and keeping themselves “unstuck” on their own in order to minimize psychological dependency on the Sensei-therapist. Clients are given “homework” consisting of the exercises and routines required for them to eventually master and own the skills that they are instructed to practice several times each day and night. Mudansha-clients are given home exercise routines which include the self-monitoring of posture and breathing, meditation, upper and lower body stretching out routines, kiais, including which exercises are best done in the morning, at night or at other times. Later, they will be instructed by their Sensei-therapist as to other times and situations to use these procedures, e.g., before riding in a car or confronting other feared or anxiety provoking situations.

OMAR, of course, is not in any way meant to replace a traditional psychotherapy group, but rather, to provide an alternative path for survivors to maximize their Behavior Potential. According to a status dynamic formulation, successful clinical outcomes following these OMAR individual and group interventions should result in increased Basic Human Need Satisfaction (Aylesworth & Ossorio, 1983). Among such would be a greater sense of self-worth because they were now able to do things that they could not do before, a greater sense of hope because there was a meaningful place for them in their new world.

We borrow from OMA those statuses and methods believed to be effective, not just to assign them statuses or to practice methods having to do with martial arts, but rather to assign them statuses within a reconstructed world that gives them the behavior potential they need. OMAR is an action-oriented approach in which people are required to do more than sit around talking about what they think and feel, and how they got to where they are now. OMAR provides a structure for giving clients positive statuses. The sense in which OMAR is psychological is that the Sensei-therapist provides Mudansha-clients with a “path” which they can use to fundamentally change their place in the world, teaching “the way” to acquire and maintain that new status.

The Sensei-therapist helps them to create more viable places in the world for themselves, enabling them to see that they can carry this off. “This is the way it needs to be; this is what the world needs to look like and what each person’s status needs to be.” A powerful status assigner is needed to make the shift happen and make it stick. What the Sensei-therapist does, at a minimum, is to get Mudansha-clients to play a different part. They move from playing the part of the invalid who is severely limited to that of a survivor who can *do something on his or her own*, and in the best cases, do things they never imagined themselves doing. This can involve benefits such as being more flexible and stronger, being more focused and completing one’s thoughts, or entering different worlds such as attending church, a Tai Chi class, or getting on a bus and going somewhere on one’s own for the first time.

The survivors are always presented as having a choice (Bergner, 1973): to attain and live at their highest level of competency which is as the Wounded Warrior, or at the much lower status and lesser place in the world as the Helpless and Hopeless Invalid. Staff at rehabilitation hospitals have long known the importance of approaching rehabilitation in terms of choice and a sense of self-control. They would communicate to the adult survivors of severe injuries, “Yes, this terrible thing happened to you but now, what do you want to do with the rest of your life?” OMAR provides another

approach to make that basic appeal more effective. Research has shown that greater internal locus of control is associated with more favorable rehabilitation outcomes in the brain injured (Izaute, Durozard, Aldigier, Teissedre, Perreve, Gerbaud, & Laurent, 2008). Greater internal locus of control has also been associated with greater use of complementary and alternative medicine treatments (Sasagawa, Martzen, Kelleher & Wenner, 2008). Greater self-control is an essential goal of OMAR.

The selection, sequencing, timing and development of the components in OMAR have been refined with approximately two thousand clients in clinical applications over the past twenty years. The basis for deciding whether a particular routine or thinking should be included or excluded is first and foremost based on sensei-therapist asking the question “Would this serve the Mudansha-client, and, if yes, how so?”

OMAR in Action

This section discusses the application of OMAR to a group of clients in an aftercare group setting recruited from an informal gathering provided for individuals with moderately to severely disabling spine or brain injuries. Several years ago, when I proposed initiating an OMAR group for residents with spine injuries at a local rehabilitation hospital, I was told by their staff that one of their greatest unmet needs related to the dearth of programs and options available for their moderate to severe traumatic brain injured aftercare survivors, many of whom had spine and other major injuries as well, and I was soon thereafter introduced to a community self-help group.

OMAR Group Participants. Volunteers for the OMAR group came from the Hang Out Group, a community self-help group of more than 100 survivors of moderate to severe brain injury, many also with spine and other injuries who had finished traditional treatment and who remained chronically disabled. After designing a twelve week OMAR curriculum and working out the logistics for the group, I presented a

lecture to a group of about 65 potentially interested survivors. In this initial pre-framing lecture, I discussed how my clients and others had benefited from participation in the martial arts in their rehabilitation efforts, while sharing an awareness of their frustrations at the limited options available to them. I discussed the alternative path that OMAR can provide to recovery. In this presentation, one could hear a pin drop—which went against my understanding and expectations, and against the stereotype that these people can't control themselves because of their brain injuries. The pre-screening interviews were conducted with those who expressed further interest in joining the group which was about 30 of the 65 or so Hang Out group members who had attended the pre-framing lecture a couple of months earlier. Criteria for inclusion for survivors were: Ability to articulate a goal, ability to understand auditory information, and ability to follow simple instructions. In addition, their family or professional caregivers had to be supportive enough to transport them to the group session and to encourage them to complete their daily homework assignments. Not all such family members and professionals were. Some felt that they were already doing more than they could handle and may have seen OMAR as just another addition to their “to do” list.

In the present study, OMAR was taught to a small group of 12 rehabilitation hospital aftercare survivors who were severely disabled with moderate to severe traumatic brain injuries (TBI), two rendered vent-quadruplegic by their spine injuries. These 10 male and 2 female Mudansha-clients were taught “the way” by the Sensei-therapist at the OMAR dojo, or facility. Eight of the 12 completed all of the pre- post interview questions.

I had anticipated that I could work with a group of 12 to 15 survivors at a time, but the severity of the injuries of these Mudansha-clients made me see this as perhaps too large an estimate of ideal group size.

Who are these people? Let me share just five brief, but typical, descriptions of the world-transforming events experienced by members of our Hang Out OMAR group resulting in their acquired

disabilities. Some of their desired OMAR outcomes are also included.

- 16-year-old girl driving just three months, returning from a concert with her girlfriends, hits a retaining wall. Her car flips over three times, and she has a severe TBI and spine injury. Now 26 years of age, her desired OMAR outcome? “To be more functional, more physically integrated.”
- 28-year-old man on a motorcycle, sitting at a stoplight, is hit in a multiple car pile-up, initiated by a kid in a pick-up truck. The man is in coma for 9 months and comes out with a brain injury. Now 39 years old, what he wants? “To control my emotions and not eat so much.”
- 20-year-old male, slips on ice while drunk at home at his sister’s wedding party, resulting in brain injury and quadriplegia. Now 28 years old, what he wants? “To get back into society.”
- 17-year-old boy, high school student, with his mom in an amusement park, when another kid in park hits him so hard that smashes his spinal stem, resulting in brain injury and quadriplegia. Now 28 years old, his desired outcome? “More focus.”
- 22-year-old man, Ivy League graduate, who is in a skiing accident and then a 5-week coma. He is told that mentally he will never achieve at the level of a 6-year-old, but he rejects it: Now 30 years old, “I’d never admit that I had a disability.”

These individuals had in common the misfortune of an event resulting in serious injury. These events were unanticipated and random. Survivors did come disproportionately from a population of “Invincibles”, high-testosterone young males more frequently engaged in risk-taking behaviors. Such individuals tend to reject the status assignments given to them by the standard system for treating such injuries. They complained of feeling “stuck”, “frozen in neutral”, and of frustrations with problems with self-regulation (weight, insomnia, balance and coordination), low self esteem, lack

of focus and concentration. Many were taking multiple medications and were aware that their life expectancy post-accident had been significantly reduced due to the greater rates of infections and other complications related to their severe and complex injuries. What they often said they wanted was some connection to what they did before their traumatic events, including getting out and doing something physical, exercising and connecting with people in some significant ways (beyond playing video games all day).

OMAR Methods

The OMAR group Mudansha-clients came to understand the value of relying on ancient and proven sets of procedures and ways of thinking. Every club at which a martial art's discipline is taught has a dojo, which means simply the place (jo) in which "the way" (do) is taught. Our OMAR dojo was created by everyone sitting around in a big circle in the group room of a church and each time setting out our sign which read "The Hang Out OMAR Dojo" and then bowing into the group, in unison, at the beginning and end of each session, with one of the Mudansha, a TBI retired sergeant yelling out at the beginning and end of each class "kiotske"(attention) followed by "rei"(bow). At the conclusion of each class we would press a button on our plastic Darth Vader "Star Wars" statue, gifted from one of the survivors which said "Impressive, most impressive; but you are not a Jedi yet."

Each of the 12 one-and-a-half- to two-hour OMAR group sessions was made up of two separate components from the set curriculum: the didactic followed by the experiential. The first part was a lecture on the thinking and background of the oriental martial arts, topics such as what it means to be Bushido, to live by the code of a Samurai, of honor and commitment to serving and protecting others; the concept and practice of Mushin ("No mind, no thought, no motivation") that of the 16th century samurai Miyamoto Musashi; and laying out the ground rules for our OMAR workout sessions. The second part involved the "hands on" teaching of the wazas, or

techniques, always beginning with a review of proper posture and breathing, progressive upper body stretching out routines, then to the Kiais, and Mokuso meditation.

Ground rules for the OMAR group, laid out in the first session included the following: no whining, no talking about the past, and no sharing of feelings or emotions. These ground rules reflected my judgment and sensitivities in my role as their Sensei-therapist, one who is competent to show them “the way” to maximize their behavior potential by operating at their highest level of competency and staying on “the path”.

Such ground rules tend to have positive consequences that include the elimination of meaningless chatter, and reducing noise that might interfere with the Mudansha-clients consolidating their new status, which allows greater clarity and focus with regard to the desired outcomes from OMAR group participation.

A graduation ceremony, classical within the martial arts, followed the 12 sessions. It involved the Mudansha-clients demonstrating their wazas to the larger, self-help community group followed by an awards ceremony in which each Mudansha received his or her yellow belt and an official certificate from the Hang Out OMAR Dojo, acknowledging their new status.

Results and Discussion

Narrative outcomes. The desired outcome was giving the group members a real and long lasting status change, one in which the gap between the person’s potential for engaging in a full range of meaningful social practices and their actual ability to do so was reduced. Here is an example: After 8 of our 12 sessions in which a consistent theme was what it means to be Samurai—a duty defined as both to serve and to guard, one quad took a major action which exemplified the Samurai ethic in a dramatic and unexpected way. When he realized that the other quad whose battery was running down would be left outside stuck in the hallway and away from the dojo and the Hangout group, he rescued him by dropping out of his

chair and onto the ground, and offering his chair to his fellow warrior for the entire two hour session. As another example, when asked after four sessions if any of the Mudansha-clients would be willing to help demonstrate the OMAR wazas at the State of Colorado's annual brain injury rehab conference, all refused; however, three showed up at the presentation unexpectedly and helped instruct the entire conference group. Other examples could be given of the growing ability of the members to think of others rather than being focused on their own problems and limitations.

Pilot data. There are two small sample sets of data that address the effectiveness of aspects of the OMAR program and its rationale. First are data from 8 members of the Hangout Group for whom complete data at two time points were available. Second are data from 33 participants [who volunteered from the total attendees of about 80] in the BIAC annual Vail Conference (Brain Injury Association of Colorado).

The Hangout group received the complete set of 12 sessions of OMAR over a 6 month period and data were collected after the fourth session and after the final (12th) session in December

Six questions were asked anonymously on the Hangout Evaluation for OMAR: For the first 4, the response alternatives were 1 = *Not at all*, 3 = *moderate so*, and 5 = *Very much so*. The questions were 1. Do you feel like these OMAR sessions have helped you overall? 2. Do you think these exercises have made you less tense? 3. Do you feel like you are more in control of your emotions since you started doing OMAR exercises? 4. Do you think you have more focus and are better able to pay attention now than you could before you started the OMAR group? 5. Do you do these OMAR exercises outside of our group sessions? Yes or No. 6. If yes, how often? Once a day, several times a week, or once a week or less.

Three additional questions were asked in the post questionnaire not asked in the pre-test. These were 1. Do you feel like these OMAR sessions have given you increased mental and physical energy? 2. Do you feel like these OMAR sessions have made your world bigger

than it was before? and 3. Do you feel as though you now have more to give to others than when you first started?

Following the twelve group OMAR sessions, most of the Mudansha-clients reported practicing their OMAR techniques daily, and all reported a strong sense of benefit, including increased mental and physical energy, having “a world bigger than it was before,” and “having more to give to others” than when they first started. Because the desired outcome of the OMAR application with this group was to affect an increase in the survivors’ behavior potential, i.e., ability to engage in the social practices available to them in their community, these outcomes, although from a small sample, nonetheless suggest the possibility of positive psychotherapeutic outcomes for an OMAR based intervention.

Data from a Brain Injury Conference. Those in attendance and participants in the OMAR-derived relaxation sessions were primarily TBI survivors, family members and caregivers, professionals/service providers. The primary purpose of the presentation was to let TBI patients, family members and providers know about the potential of OMAR-related techniques. Volunteers answered four questions about their stress levels (anonymously) and two demographics—gender and status—prior to a 15 minute session devoted to the rationale for OMAR with three specific types of techniques being taught and practiced. These were proper posture and breathing, the Kiai (strong yell from the abdomen), body centeredness, and the Tai Chi exercises, then volunteers completed the same questions concerning the same stressor. This is, of course, a pre- post-study with no control group, but the changes were indicative of reductions in their chosen stressor and afterwards many expressed an interesting making contact with members of the Hangout group, three of whom came up to the front and helped with the demonstrations.

Overall Discussion

In this chapter, I have tried to accomplish three things: (a) to provide a detailed rationale for the use of Oriental Marital Arts in

the rehabilitation of spinal cord and TBI patients, (b) to provide a psychological rationale for these therapeutic interventions drawing on the concepts and ideas of status dynamic therapy derived from Descriptive Psychology, and (c) to illustrate how such an intervention would work by providing the outcomes from a small scale intervention with 12 such survivors, eight of whom provided complete data.

With respect to my goals a and b, I believe that I have provided the most extensive presentation of these as relevant to spinal cord and TBI survivors and thus provided a resource for others who seek alternative, potentially more effective ways of providing hope and real change for a population with very limited opportunities. With respect to the empirical demonstration, a lot more needs to be done before compelling evidence exists for the merits of OMAR as a therapeutic intervention for such survivors. The existing data are encouraging but quite limited given the absence of a control group, a large enough sample for serious statistical evaluation, and the wide range of severity of symptoms among the members of the Hangout group.

Among the next steps are these: (a) Larger samples with more careful screening for the range of deficits both in the person and in his social support system that has a direct impact on his ability to profit from OMAR, (b) the development of a wait-list control which would provide an ethically responsible delay in treatment thus allowing for effective evaluation of the impact of the intervention but also not depriving any client of access to it, and (c) assembling the staff needed to conduct the research and ensure that data was collected and coding properly. Given the large number of TBI veterans returning from Iraq and Afghanistan at this time, this maybe the right time to secure federal funding for such a rigorous evaluation. At the Rehabilitation Hospital where I initially came into contact with this population, 80% of their admissions were men with a mean age of 25 at the time of their life altering accidents, demographic characteristics not very dissimilar from our active duty military veterans. Many military veterans returning from the wars

in Iraq and Afghanistan reject traditional psychological services and any attempt to assign them the status of “psychiatric patient” in need of group psychotherapy, regardless of the extent of that need or of how apparent that need might be to others, just as they will resist their need for psychiatric medications, testing or other services offered. More severely injured survivors tend to resist any and all labels/status assignments. They may treat visiting a psychologist as an admission of weakness or degradation ceremony. “I’m not crazy or stupid.” The sensei, or oriental martial arts instructor, appears to be a more acceptable status than the “therapist” and hence to have increased access and leverage as a status assigner, especially for this subpopulation of young men and women, including military vets. A large percentage of these young men and women have studied one of the OMAs or for other reasons have belief systems which would believe in the efficacy of such training and would be open to becoming competent in these practices.

On a more personal note, I have attempted over the last 15 years to utilize and integrate oriental martial arts thinking and practices into my clinical work as a rehabilitation psychologist. By relying on Descriptive Psychology in a systematic way and drawing on my own experience in OMAs, I have developed and relied on Oriental Martial Arts Rehabilitation, adapted for psychological rehabilitation purposes. My sense is that OMAR may offer an alternative treatment modality that can appeal to those for whom traditional psychological therapies are inaccessible, and that further work is needed to evaluate the efficacy of the program for populations in need. If initial results are positive then, further refinement and research into which components are critical for its success is justified and should proceed.

Lessons Learned

Several considerations followed the completion of the twelve OMAR treatment sessions and final graduation ceremony including whether the group might not have been better served had the

selection criteria resulted in participants with more similar ranges of cognitive and physical impairment. We had intended to teach and practice more extensive physical exercises, including more stretching and strength work; back and forward falls, and rolling falls, and more physically demanding work on the tatamis, or mats available to us. This was not possible, however, because of the broad range of cognitive and physical impairment among our Mudansha-client group members. Some required so much individual instruction or had such severe physical injuries that parts of the original OMAR curriculum were not usable with them. All of the groups' Mudansha-clients requested that their OMAR group to continue in some form after the graduation ceremony, and it was apparent that these Mudansha-client survivors might well require further opportunities for OMAR group participation if the desired outcome of providing a real and long lasting status change were to be achieved. Learning strategies for maintaining and consolidating these status changes for the OMAR participants is key to a successful outcome.

Having said this, it should be reiterated that this method is not meant to supplant other therapies, but rather to augment other treatments for some, and to offer an alternative treatment for others. But this may provide an alternative to those who do not view traditional psychological therapies favorably or for other reasons are unable to make use of them.

OMAR individual and group sessions can be conducted in various settings, prototypically involving a master level therapist with some minimal level of martial arts training but appreciation and understanding of that OMA, teaching with a local sensei assistant. And there now exists a broad network of OMA clubs and other facilities across the country, even in small towns, which could be used.

Conclusion

If you think of a person's life as having a narrative structure akin to a play, would you rather see a play about a hopeless and

helpless invalid who feels bad about himself, a play in which nothing happens, or would you rather see a play about a Wounded Warrior in which many things can and do happen? Ossorio (2006b) writes: "... to speak the truth is to say of what is, *what* it is" (p.136). To speak the truth is to say of an invalid that he is an invalid, or, to speak the truth is to say that he is a Wounded Warrior. We create the fact of the survivor being a Wounded Warrior by how we treat him.

If we are successful, then that is what he is, a Wounded Warrior. The person may not look that different from the outside, but for the person who chooses the path of the Warrior, it will be the life of a Wounded Warrior even if what s/he can do "objectively" is very, very little. The essence of OMAR is about making a good status, and a good place in the world, real for severely disabled people, and teaching the path, or the way, for maintaining that status.

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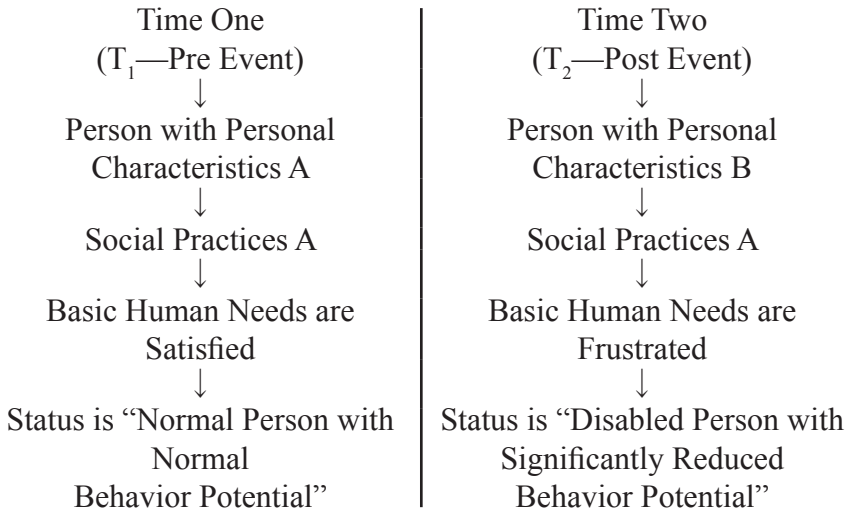
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Table 1. General Model of Acquired Disabilities



Author’s Note

Many of the ideas in this paper have been presented at annual meetings of the Society for Descriptive Psychology. In 1990, I

delivered “Kiai: Restoring Personal Power Following Trauma” and introduced the idea of using procedures from martial arts in rehabilitation. In 2000, I presented “Doctors of Uncertain Status: Psychological Treatment with Asians” and discussed the statuses of “Wounded Warrior” with the therapist in the status of Sensei/teacher. In 2004, I gave a talk entitled “Hands On”, in which I shared the results of a literature review and guided participants in practicing some of the OMAR exercises and routines. (The “Hands On” talk was also presented to survivors and others at the Brain Injury Association of Colorado’s (BIAC) 2006 fall conference.) My 2007 talk, “Oriental Martial Arts Rehabilitation: Restoring Lost Behavior Potential in Traumatic Brain Injury and Poly-trauma Survivors”, focused on the status dynamic understanding as well as my work with moderate to severe TBI survivors who were members of the Hang Out group and was the basis for this chapter.

Numerous people contributed to this paper along the way, including my martial arts teachers and colleagues, particularly in Kodokan judo, and also my colleagues in the field of psychology, particularly in Descriptive Psychology. Tony Putman’s counsel in encouraging me to drop some of the potentially confusing oriental language, hence making these concepts more accessible to outside groups, was invaluable, as was Mary Roberts observations regarding the increased access OMAR could have by shifting from an actor-observer-critic to a dramaturgical perspective. Don Gerber and Jan Nice, of Craig Hospital, who have both made lifelong commitments to serving those with severe disabilities, provided critical feedback, encouragement and direction, and access to the network of aftercare services, with regard to running the OMAR group through the Hang Out self-help group. I would also like to thank the First Mennonite Church of Denver for allowing the generous use of their space to be our dojo, the Denver Buddhist Temple for providing the award certificates, and other support resources. I am also deeply grateful to Keith Davis and Tish Thompson for their extensive editorial assistance.

The Tolstoy Dilemma: A Paradigm Case Formulation and Some Therapeutic Interventions

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Abstract

Some psychotherapy clients report a core life problem in which, like Leo Tolstoy over a century ago, awareness of their inevitable death undermines significantly their sense that life can have meaning. This article presents a paradigm case formulation of these individuals. In it, I shall (a) delineate the beliefs embodied in this Tolstoyan world view, (b) show how each is problematic, (c) formulate alternative and more meaning-generative views of reality that may be promoted by psychotherapists, and (d) proffer a number of specific therapeutic recommendations that have proven helpful in my own work with clients in the grip of this dilemma.

At a point in his life when he was strongly tempted to commit suicide, Leo Tolstoy expressed the basis for his despair and crisis of meaning in the following way:

“What will come from what I am doing now, and may do tomorrow? What will come from my whole life? Otherwise expressed—Why should I live? Why should I wish for anything? Why should I do anything? Again, in other words, is there any meaning in my life which will not be destroyed by the inevitable death awaiting me?” (1929, p. 20).

A small but significant number of psychotherapy clients share Tolstoy’s dilemma (Yalom, 1980). For these clients, awareness of

their inevitable death undermines significantly their sense that life can have meaning. “What’s the point of doing such things as working hard, striving to accomplish something in my life, or forsaking personal satisfactions and advantages in order to be moral,” they wonder, “if in the end I must cease to exist and my world must end? What difference will it make even if I am tremendously successful? Will not I and my achievements disappear without a trace from human awareness some day? It’s all for nothing in the end—like Camus’ (1955) Sisyphus striving to push that gigantic rock up the hill again and again, only to see the fruits of his labor inevitably destroyed.” In some cases, like Tolstoy’s, the dilemma is in the foreground of consciousness and is experienced as especially acute. In others, it forms a less conscious, vaguely articulated backdrop to life in which there are, in Yalom’s words, “mortal questions churning below” (1980, p. 121). In either case, it provides the basis for a life lived in depression and meaninglessness.

In this paper, a portrait of individuals with this “Tolstoy dilemma” will be provided. This portrait will take the form of a paradigm case formulation (Ossorio, 1981, 2006), which in this case will be a prototypical or ideal case that embodies all of the features that an individual with this problem might exhibit. While not every client will manifest all of these features, such a depiction provides coverage for other less complex cases where some of these features may not be in evidence. The portrait here is comprised of a set of component beliefs that, taken collectively, constitutes a world view that is highly destructive of meaning and happiness. The following discussion delineates the component beliefs embodied in the Tolstoy position, relates how each is problematic, and formulates alternative and more meaning-generative views of reality that might be promoted by psychotherapists.

A Paradigm Case Formulation of the Tolstoyan World View

Component Belief: Immortality Would Guarantee Meaning

Embodied in Tolstoy's lament, and in the broader world view in which it is embedded, is an implicit assumption. Since, in this view, it is our temporal finitude that robs life of meaning, it follows that if we were not subject to this limitation such meaning could be ours. Thus, the implicit belief is that personal immortality would somehow guarantee meaningfulness.

However, in the world that Tolstoy so desperately craves, one where we and our achievements would last forever, the question of how to find value in one's actions and one's life would remain (Bergner, 1998; Yalom, 1980). Indeed, in such a world, the problem would be greatly exacerbated. It is instructive in this regard to recall Sisyphus, whose precise problem in Camus' (1955) classical essay is that he is condemned to a world in which he must repeatedly engage in the ostensibly pointless action of pushing a gigantic boulder up a steep hill again and again, only to see it roll down each time. The potential meaninglessness is not eliminated, but in fact made far worse, by the fact that he is condemned to do this *forever* (see also Lagerkvist's 1958 portrayal of "The Sibyl"). The meaninglessness lies in the action itself and in Sisyphus' relation to that action, not in his mortality or lack thereof. Being granted immortality, even if that were possible, would in no way guarantee that any person's actions and world would be rendered meaningful.

Component Belief: Meaning Cannot be Found in Temporal World

The centerpiece of Tolstoy's world view is the belief that meaning cannot be found in the world as it is—a world in which one must die. In his view, the fact that both oneself and all of one's efforts and accomplishments are ineluctably doomed to extinction renders them

utterly pointless and futile. It was precisely this belief that brought Tolstoy to his deepest despair and to the brink of suicide.

Factually, we and our experiences and achievements are ephemeral. Despite this, everyday observation, as well as abundant anecdotal and scientific evidence (Baumeister, 1991; DeBats, Drost, & Hansen, 1995; King, Hicks, Krull, & Del Gaiso, 2006; McGregor & Little, 1998) attest to the fact that countless individuals find many of their actions and pursuits highly meaningful, and lead overall meaningful lives. Therefore, important bases for meaningfulness clearly exist that in no way depend on being immortal.

The bases upon which persons find such worth and value in their behavior and their lives, far from being obscure and ineffable, are very familiar to us. They are readily observable in everyday life and have long been documented in the psychological literature, although not as a rule in the present connection. These bases are the instrumental, intrinsic, and spiritual value that persons may, and very often do, derive from their behavior (Bergner, 1998). Let us briefly examine each of these.

Instrumental value. In instrumental behavior, an action is engaged in because it is deemed by an individual to be instrumental in bringing about some desired state of affairs (Ossorio, 1976, p. 163). The achievement of this state of affairs constitutes the instrumental value of the behavior. The student studies in order to pass the test, the employee works in order to earn money, the athlete practices in order to win the race, and so forth. In some cases, the desired outcomes of instrumental behavior may constitute highly valued causes around which persons organize their whole existence (e.g., promoting world peace, protecting consumers from unscrupulous companies, promulgating religious positions, or winning an Olympic gold medal).

Intrinsic value. In intrinsically motivated behavior, a person engages in some behavior for the meaning or satisfaction inherent in that behavior itself, independently of any extrinsic ends that it might bring about (Csikszentmihalyi, 1990; Ossorio, 1976, p. 163). The individual converses with a friend, plays a game, listens

to music, reads a book, solves a problem, makes love, or plays with the children, in whole or in part, for the reason that he or she derives meaning and satisfaction from these activities themselves. Once again here, we encounter cases in which persons become so immersed in activities such as participating in athletics, creating art, or caring for children, that these become core life activities around which they center much of their existence (cf. Csikszentmihalyi, 1990, on “flow”). Furthermore, many persons derive intrinsic satisfaction in the pursuit of instrumental ends—in playing the game or working for the important cause—whether or not they ultimately achieve their objectives.

Spiritual value. In spiritually motivated behavior, a person behaves for reasons that are characterized by ultimacy, totality, and boundary condition (Ossorio, 1978; Shideler, 1983, 1985, 1992). With regard to ultimacy and boundary condition, such persons look beyond immediate, limited ends accomplished by their behavior to ultimate ones: “When all is said and done, what is the ultimate purpose of what I am doing, the purpose that lies at the boundary beyond which there are no further reasons or justifications?” “In my behavior, am I acting in relation to some ultimate being?” With regard to totality: “What is the purpose, not just of this action today, but of my whole life?”, or “What is the purpose of everything that is; what does it all mean?”

At this level of ultimacy, totality, and boundary condition, some individuals, both religious and nonreligious, have arrived at personal answers to such questions that provide enormous value for them in their actions and lives. The religious among them give as their ultimate answers ones such as the following: “I believe that in doing this I am doing God’s will,” or “loving and praising God,” or “achieving union with God.” The nonreligious profess ultimates such as: “I believe that in doing this, I am doing my best to make the world a better place for coming generations,” or “bringing happiness and relief from misery into the lives of others,” or “living each of my allotted days in the fullest and most authentic way possible.” Thus, some persons live their lives in light of such ultimates (cf.

the classical notion of living “sub specie aeternitas”) and derive the sorts of value from their actions and lives that come from living in this way (Shideler, 1983, 1985, 1992). (NB: The enterprise of promulgating “*the meaning of life*” to others may be seen, on the present analysis, as a case of taking one’s own personal ultimate and promoting it as a universal one to be embraced by all persons.)

From the foregoing, it should be clear that deriving instrumental, intrinsic, and spiritual value from one’s actions need not be mutually exclusive. One may, in single behaviors and in extended courses of action, realize all of these values simultaneously. In the single act of teaching children, for example, a teacher might simultaneously earn a living, derive strong intrinsic satisfactions, and do something that she believes has ultimate significance.

Meaning in life, then, does not and could not derive from immortality. It derives, rather, from the instrumental, intrinsic, and spiritual value inherent in one’s behavior. Individuals enmeshed in the Tolstoy dilemma are in fact mistaken in their beliefs both that immortality would guarantee meaning, and that meaning cannot be found in the ephemeral and transitory world where all of us must die.

Component Belief: “It’s All Instrumental”

Individuals enmeshed in the Tolstoy dilemma characteristically hold a world view that is excessively instrumental, a world where almost every behavior, if it is to be counted worthwhile, must be instrumental in the production of some important end. For these individuals, meaning equals payoff, and life is essentially an operant affair that is all about the achievement of extrinsic benefit. In his suicidal outcry, related above, Tolstoy twice raises the question of what will “come from” his actions and his life. In so doing, it is clear that his concern is with the outcomes of his past and future life’s efforts. When he inquires further, “Is there any meaning in my life which will not be destroyed by the inevitable death awaiting me?” (1929, p. 20), he can only be referring to future consequences derived from his actions, since past and current meanings and satisfactions

could never be so destroyed. Finally, when psychotherapy clients express this dilemma, their characteristic lament has to do with the fact that the result of all their efforts to achieve, to accomplish, to create, and to be moral will in the end be obliterated—that they are like children building sand castles at the beach, only to see them inevitably washed away by the incoming tide.

Lack of intrinsic and spiritual behavior. There are several critical problems with this wholly instrumental world view insofar as achieving meaning and satisfaction in life are concerned. The first of these critical problems lies in what is missing from this world view; namely, intrinsic and spiritual value as described above. Both intrinsic and spiritual value are in a very important sense immune from death. They are derived in the very participation in individual behaviors and courses of action—derived “on the spot,” one might say. There is no question of their being, in Tolstoy’s phrase, “destroyed by death.” Indeed, persons whose lives are heavily immersed in such behavior are not even prone to raise questions about “the meaning of life” (Bergner, 1998), and this seems to capture the sense of Wittgenstein’s famous assertion that “the solution of the problem of life is seen in the vanishing of the problem” (1922, p. 73). Just as such questions “vanish” while persons are deeply immersed in a game, transported by music, captivated in conversation, caught up in solving a problem, or engaged in lovemaking, so do they vanish largely from whole lives in which there is an abundance of intrinsically and spiritually motivated behavior.

A requirement for instrumental behavior to be meaningful. It was noted earlier that very important sources of meaning often do lie in the instrumental outcomes achieved by a person’s actions. However, in order to secure such meaning, a basic requirement must be met, and this requirement is characteristically unmet in persons enmeshed in the Tolstoy dilemma. Specifically, for instrumental behavior to be meaningful, it must be linked to an ultimate goal of a certain precise sort. In the means-ends chain of instrumental acts, however long or short, where behavior X is engaged in to bring about

state of affairs A, which in turn will result in B, which in turn will result in C, and so forth, at some point a terminal goal must exist that constitutes for the individual an end of sufficient intrinsic value that it requires no justification by reference to any further end. On a smaller, day-to-day scale, such final order goals may lie for the ordinary person in such simple things as making a good dinner, winning a game, or attending a favored entertainment. On the larger scale of persons' whole lives, they may lie, depending on the individual, in such things as making a contribution to a highly valued cause, spreading a religious doctrine, winning a great competition, or raising children to be healthy, secure, contributing citizens.

With respect to such larger life goals, the primary danger seems to lie in individuals setting for themselves final order goals that in prospect seem highly alluring, but that ultimately prove insufficient for them, a phenomenon that is sometimes referred to as “pursuing false gods.” When this is the case for a person, one of two things may happen, and both conduce to meaninglessness and despair. First, individuals may get what they want, but find that, while it may provide significant satisfactions, in the larger scheme it proves woefully insufficient in providing all that they had hoped for. This is precisely what happened to Tolstoy, as expressed in the following quote:

“I now have six thousand desyatins in the province of Samara, and three hundred horses—what then?...what if I should be more famous than Gogol, Pushkin, Shakespeare, Moliere—than all the writers in the world—well, and what then? I could find no reply. Such questions demand an immediate answer: without one it is impossible to live. Yet answer there was none,” (1929, p. 20).

Tolstoy, to this point in his life thoroughly enmeshed in an instrumental world where his actions were always about the achievement of the ends of fame, wealth, and exalted literary reputation, achieves his cherished goals but in time comes up empty

and despairing to the point of suicide. His crisis came precisely when they did not deliver all that it seemed they would, and where pursuit of the same path, it was clear to him, could not possibly succeed. For even if he were to succeed beyond his wildest dreams, he laments, his triumph would nevertheless be doomed to extinction by death.

The second scenario related to the setting of larger life goals occurs when individuals spend their lives in the instrumental pursuit of such goals, but this pursuit never culminates in a fruition deemed adequate. Life in this scenario is exclusively focussed on achieving some ultimate prize to the exclusion of intrinsic or spiritual behavior. However, the quest proves unsuccessful, and on this account the individual comes to regard his or her life as meaningless. For, in this instrumental world view, if you don't achieve your goals, the belief is that your efforts and your life have been "wasted" and it's "all for naught."

*Component Belief: The Key to Human Happiness
is to be a Special Person*

The content of Tolstoy's crisis illustrates something further here. Like Tolstoy, many people beset with his dilemma believe that the key to human happiness lies in becoming a special, exalted, extraordinary person in the eyes of the world. Being a special, admired individual is seen as an ultimate accomplishment and a magical solution to one's existence. Achieving this end becomes the individual's holy grail, resulting in an excessively instrumental orientation to life in which achieving it is all that matters, and in which intrinsic and spiritual meanings are lost. The roots of this belief in personal specialness as the key to human happiness lie in a number of societal and individual factors, several of which are characterized briefly here.

Societal factors. On a societal level, individuals are given countless messages that, to be persons of worth, they must stand out from the crowd as being uniquely special and above others. This may encompass various domains such as being extraordinarily achieving,

powerful, wealthy, beautiful, or “cool.” The social encouragements are endless: “Be number one or you’re nothing.” “Winning isn’t the most important thing; it’s the only thing.” “You must make your mark in the world.” “Good enough isn’t good enough—you have to be the best.” As an author, politician, athlete, beauty, business person, or scientist, you must achieve distinction—win a Nobel prize, write an acclaimed novel, become president, acquire great wealth, be selected Miss America, win an Olympic gold medal, and so forth. Achieving such distinction, you will be admired, happy, self-confident, and treated with respect and deference by others. Failing to achieve it, you will be ordinary, a failure in life, just another faceless nobody in the crowd.

Individual factor: Defense against death. Yalom (1980) has asserted that strong personal needs for, and beliefs in, one’s own specialness, serve as defenses against death anxiety:

“To the extent that one attains power, one’s death fear is further assuaged and belief in one’s specialness further reinforced. Getting ahead, achieving, accumulating material wealth, leaving works behind as imperishable monuments becomes a way of life which effectively conceals the mortal questions churning below” (Yalom, 1980, p. 121).

Individual factor: low self-esteem. Factors in the lives of certain individuals are often conducive to their having inordinate needs for specialness and personal glory. For example, as clinicians we observe that undergoing degradation at the hands of others often results both in low self-esteem and in powerful needs for self-affirmation (Ossorio, 1976; Kohut, 1977; Bergner, 1987). The child who, in one way or another, is humiliated, ostracized, marginalized, rejected, or otherwise degraded, emerges in many cases with powerful needs to “show them all” by achieving personal glory. The need here is to achieve some grand public triumph, to have such a triumph acknowledged, and to have others admit they were wrong about one.

Thus, motivated by societally and personally generated needs for personal specialness, the individual becomes inordinately consumed with an instrumental search to secure it. However, as noted previously in connection with Tolstoy's own personal crisis, personal glory or specialness seems to be a goal that, while it has its advantages, does not deliver all that it promises. In Kushner's (1988) words, it frequently turns out that "all you ever wanted isn't enough" (p. 1). Even if secured, personal glory does not provide the promised peace, happiness, and self-esteem that it seemed it would. Where self-esteem is concerned, the individual often proves unable to concur with the crowd in their acclaim. He or she knows the "real low-down" about self that others cannot suspect, and which puts the lie to their fawning admiration. As also noted previously, the desired glory is often not achieved, and senses of failure, disillusionment, and meaninglessness ensue, all of which become more and more acute as the individual grows older and despairs that it will ever be achieved. Finally, there is a dawning sense of what an exercise in utter futility and meaninglessness it is to work terribly hard to achieve personal glory—to accomplish some extraordinary feat or to accumulate vast power or wealth—only to die and have it all obliterated.

Component Belief: "In 100 Years, It's All the Same"

Many clients in the thrall of the Tolstoyan outlook hold a view that says in effect: "What I do today—what things I accomplish, what efforts and sacrifices I make, what satisfactions and advantages I forego in the name of morality—make absolutely no difference in the long run. In 100 years, it's all the same. So what is the point?"

These clients are not aware of, or are not subscribing to, what chaos theorists have termed the "butterfly effect" (Gleick, 1988). This is the phenomenon in which even a minor perturbation of the weather system in one country may have far-reaching effects in the future in a distant country, such as the creation of a hurricane. For some more altruistic clients immersed in an instrumental world, it

can be useful to use the image of the butterfly effect to remind them that, while they may or may not be around to see them, their actions may have consequences in the near and distant future of unknowable proportions. This is easily seen in the lives of the parents of certain great people such as Abraham Lincoln and Woodrow Wilson, whose largely unseen childrearing practices in obscure regions of America, according to their own children, were responsible for producing people who changed human history. While these are extreme cases, it is simply not a given to assume that “what I do will make no difference after I am gone.”

Therapeutic Recommendations

The overarching goal of psychotherapy with persons in the grips of the Tolstoy dilemma is to enable them to participate in life in ways that they find meaningful and satisfying. In this section, some therapeutic interventions that have proven helpful in the accomplishment of this goal are presented.

Modify Tolstoyan World View

The first therapeutic recommendation here follows directly from all that has been said to this point. It is that therapists assist their clients to abandon the painful and life-destroying beliefs embodied in the Tolstoyan outlook, and to replace them with alternative beliefs and outlooks such as those described in the previous section of this paper. Thus, for example, beliefs that death destroys meaning, that meaning cannot be found in the temporal world, and that an instrumental search for personal glory is the answer to human happiness would be critically examined, and the client helped to see far more salutary and meaning-generative alternatives. The accomplishment of this goal is achievable through a wide variety of intervention types. Most obviously, this includes cognitive restructuring (Beck, Rush, Shaw, and Emery, 1979; Beck & Weishaar, 2005) and existential ones (Bergner, 1998; May & Yalom,

2005; Yalom, 1980). Less obviously, it includes status dynamic (Bergner, 1993, 2007; Roberts, 1985), strategic (Fisch, Weakland, and Segal, 1982; Watzlawick, Weakland, & Fisch, 1974), solution-focussed (O'Hanlon & Weiner-Davis, 2003), and any number of other therapeutic strategies. Since the general therapeutic approaches of these various schools are well and fully developed elsewhere, and are beyond the scope of the present article, I shall not develop them further here.

Provide Experience in Fantasy

A status dynamic intervention that the author has employed to good effect with clients caught up in the search for glory scenario described above is to have them generate a fantasy experience of perfect triumph, acclamation, and (often) vindication. The client is helped within the therapy hour to create an elaborate and detailed fantasy of this kind, to truly enjoy and savor this fantasied experience, and then as a homework assignment to do it over and over again in a certain prescribed way. For example, in one case involving a graduate student in English literature, the form that his fantasy assumed was that he would write the next “great American novel” and achieve national and international acclaim as an important literary figure. A subplot in his fantasy involved giving a speech to some gathering and, after his speech, having a woman who had spurned him in high school approach him in a friendly manner and ask if he remembered her. To her query, he would reply dismissively, “I’m sorry, I’m afraid I don’t, and if you don’t mind, I’m terribly busy.” Pursuant to generating and enjoying this fantasy during the therapy hour with eyes closed, the client was instructed to open his eyes and to declare aloud with as much vehemence as he could muster: “This triumph, and its endurance forever, is what I *must* have at all costs; this is the standard that I impose on life, and I *declare* anything less than this meaningless.” Subsequently, he was given the homework assignment of repeating this sequence of fantasy-followed-by-declaration for five minutes each day during

the following week. At his next appointment, he stated that he had followed the directive, but that as the week wore on he had found it increasingly difficult to do with enthusiasm. He noted, further, that the exercise had brought home to him that he was in fact imposing an impossible standard that served to disqualify potentially satisfying parts of his life, and felt that his prior belief that the realization of this fantasy would be the ultimate answer to his existence had lost much of its grip on him.

Such a fantasy exercise is clearly paradoxical in nature. It instructs the client to take his or her precise problem—here, the imposition of the impossible Tolstoyan standard of meaning on one’s experience—and to consciously and deliberately continue to enact it in a certain prescribed way. Such a directive, when successful, moves the client from the low power position of “being in the grips of” something to the more powerful position of being the deliberate author and perpetrator of that thing, a position from which a decision to change becomes far more possible (Bergner, 1993, 2007). In general, as in this case, when clients are able to carry out and fully involve themselves in this exercise, the effect is that they are able to have (albeit in fantasy) the experience that they so desperately seek, to savor and enjoy this experience genuinely, and in some small way both to put it behind them and to realize that, however gratifying it might be, it would not provide the needed answer to personal meaning and happiness.

Focus on Self-esteem

As noted above, poor self-esteem is often at the root of a client’s desperate, preemptive search for personal specialness. While the distal cause of such esteem may lie in current and past actions and criticisms of other persons towards one, it is at the end of the day by definition *self-esteem*. That is to say, it is *one’s own* summary appraisal of one’s worth and value, and its proximal cause is the individual’s own judgmental acts as a critic of self (Bergner, 1995). Thus, a strongly recommended focus in those cases where poor self-

esteem is evident (perhaps beneath a facade of narcissism) is on helping clients with the Tolstoy dilemma to identify precisely the destructive critical acts that they perpetrate upon themselves, and to abandon these in favor of more constructive modes of self-appraisal (Bergner, 1995). Again here, as in the previous intervention, the attempt is the status dynamically oriented one of removing the client from a low power position from which change is difficult (“I have low self-esteem”) to a high power position of responsible authorship (“I am the perpetrator of certain destructive self-critical behaviors which result in low self-esteem”), a position from which it becomes far more possible to change.

“You’ve Already Shown Them.”

A helpful message to some more successful clients, i.e., those who have achieved a substantial measure of achievement and recognition in the eyes of the world, is that “You’ve already shown them” (Ossorio, personal communication, 1995). The message here has two important implications. First, it states that what is desired by the client has already been accomplished, and no longer stands in need of accomplishment. Second, it reminds the client that, while special achievement and recognition are fine things, the client’s current distress attests to the fact that they have not provided the needed solution to achieving meaning and happiness in life, and therefore that doing more of the same is not likely to provide it either.

“Baby Can’t be Blessed...”

A final therapeutic focus that the author has found helpful in working with clients beset with the Tolstoy dilemma is well expressed in the words of an old Bob Dylan song: “Nobody has to guess, that baby can’t be blessed, ‘til she finally sees that she’s like all the rest” (Dylan, 1966). The message here is essentially a call to community and fellowship rather than to the separateness inherent in setting oneself up as a superior, exalted, special person. The

message is that, while there may be special things about one, one remains fundamentally a person among persons, and that enormous satisfactions (or “blessings”) lie in participating in the world as a fellow, co-entitled human being and not an aloof, set-apart, competitive superior.

Conclusion

The Tolstoyan world view, in its highly problematic relation to death, its denial that meaning can be found outside of an impossible immortality, its exclusively instrumentally focussed search for personal glory, and more, constitutes an enormously destructive and even suicide-provoking outlook. Individuals in the thrall of this outlook can be therapeutically assisted in many ways, a few of which have been documented in this article. Whatever the therapeutic means selected, the abiding goal of psychotherapy with these persons must be that of helping them to achieve an immersed participation in life that allows them to derive the countless instrumental, intrinsic, and spiritual meanings and satisfactions that this world affords to many, and may afford to them.

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An Accomplice's Tale

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Abstract

Sensitivity to a range of end of life patterns, as well as a range of afterlife patterns, is seen as essential for appreciating what is happening with a particular person who is dying. The question of what we have to fall back on as we lose our attachment to the real world is addressed. Ordinary mysteries—such as the dreamlike state that the dying may enter, the special abilities that they may have, and the special companions that are visible only to them—are explained. The problem of understanding a person's death is discussed, and a set of reminders is offered for being with a dying person in an I-Thou way.

Introduction

Much of the modern literature on death and dying reflects a “one size fits all” approach that is disrespectful and violative of individuals. The one size that is portrayed as fitting for all of us is a death of peace and acceptance. While this is appropriate for some people, for others it would simply be inauthentic.

Consider, for example, William Butler Yeats (1899/1970), an Irish poet known for his indomitable will. The following lines are from his final poem, “The Black Tower”, written one week before his death.

*The tower's old cook that must climb and clamber
Catching small birds in the dew of the morn*

*When we hale men lie stretched in slumber
Swears that he hears the king's great horn.
But he's a lying hound:
Stand we on guard oath-bound!*

What was authentic for Yeats in the face of approaching death was not peaceful surrender.

Consider Dylan Thomas (1943), a Welsh poet known for his colorful and reckless life. The following lines are from the prayer that he wrote when his father was dying.

*Do not go gentle into that good night,
Old age should burn and rave at close of day;
Rage, rage against the dying of the light.*

Dylan Thomas would not have fit in a procrustean bed of tranquility.

Unfortunately, the “one size fits all” approach is now so pervasive in our ideology and institutions that it is almost violative of community standards for an individual to want to die in his *own* way. Because of the ideological and institutional pressure to go peacefully, a person may need an accomplice in order to get away with having his own death.

This paper focuses on concepts and ideas from Descriptive Psychology that are helpful in being an accomplice to a person who is dying. There is *no* claim of universal applicability. The only claim is that with *some* people, there is a point in talking this way and acting accordingly.

Relativity Formulations

Fundamental to Descriptive Psychology is a recognition that there is no “view from nowhere”. Whatever we are seeing, we are seeing it *from* some position. For example, think of how a chair looks to a person standing in front of it, how it looks to a person off to one side of it, how it looks to a person above it, etc. If we took photographs of the chair from each of those positions, the photographs would all be different.

That is completely non-problematic for us, because we have mastered that kind of relativity thoroughly. We know that the chair is the kind of thing that looks one way from the front, another way from the side, another way from above, etc. If we have any doubts about it, it is easy enough to walk around to different positions and see what the chair looks like. The chair corresponds to the relativity set of view/viewpoint pairs.

Similarly, we have to see and describe behavior *from* some position. Think of how Yeats' affirmation in "The Black Tower" might be described by his wife, how it might be described by a fellow Irish patriot, how it might be described by his personal physician, etc. We expect that those descriptions will be different, just as the photographs of the chair are different. "What Yeats is doing" is a placeholder for the relativity set of behavior description/person characteristic pairs.

But there is an important difference between seeing the chair and seeing a behavior. We cannot become another person and see directly how that person sees the behavior, in the way that we can walk around and see the chair from where that person is. With behavior description, people sometimes end up stuck with only their own descriptions. They do not see the human world in all its fullness, in all its dimensions. They are like someone who is seeing the chair in only two dimensions, because they cannot automatically take into account other people's points of view.

The same logic applies not only to chairs and individual behaviors, but also to larger units of behavior. Instead of talking about an individual's behavior, we can give descriptions of dramaturgical units of behavior of any size and do the same sort of reconstruction. The dramaturgical units of interest in this paper are the end of life drama, the afterlife drama, and the whole life drama.

Think of two different people in the presence of someone who is dying. The first person operates only with his own view of the end of life. He expects that another person's view will be the same as his, which is like expecting that the other person's photograph of the chair will look like his. For this person, the concept of the end of life

is *not* the concept of a set of pairs. It is the concept of a pattern that is the same for everybody.

In contrast, the second person sees the end of life in all its fullness. That person automatically takes into account a set of pairs, such as:

- For an Irish poet with an indomitable will, the end of life is a time to stand “on guard oath-bound”.
- For a Welsh poet who lives colorfully and recklessly, the end of life is a time to “rage against the dying of the light”.
- For a Swiss psychiatrist who takes Freudian theory seriously, the end of life is a progression through stages.

And so forth. The second person doesn’t have to do any thinking about it. He simply sees the end of life in all its dimensions in the same way that he sees chairs.

Why does operating in light of the whole set matter for accomplices? Because without that, accomplices probably won’t see what’s going on with the individual who is dying. Without a grasp of the range of meaningful patterns that are possible, accomplices will probably miss what’s happening with the dying person even though it is right there in front of them.

Boundaries and Boundary Conditions

Consider the difference between a boundary and a boundary condition. There’s always something on the other side with a boundary. The boundary may make it difficult to get to the other side, but nonetheless there is something there. In contrast, a boundary condition deals with a limit of some sort, beyond which there is nothing (cf. Ossorio, 1977, p. 57).

The heuristic of “The Tennis Game” (Ossorio, 2006, pp. 399-400) can be used to illustrate the difference.

Jil and Gil are playing tennis and Gil has just served the ball. Wil is standing on the sidelines.

- Wil: Why were you waving your racquet like that?
 Gil: I was trying to hit the ball.
 Wil: Why were you trying to hit the ball?
 Gil: I was trying to hit the ball into the opposite court.
 Wil: Why were you trying to do that?
 Gil: I was trying to win the point.
 Wil: Why were you trying to win the point?
 Gil: I'm trying to win the game.
 Wil: Why are you trying to win the game?
 Gil: I'm trying to win the set.
 Wil: Why are you trying to win the set?
 Gil: I'm trying to win the match.
 Wil: Why are you trying to win the match?
 Gil: I'm playing tennis, and that's how it's done.

Each of Gil's answers involves an enlargement of the context, and so he goes from winning the point, to winning the game, to winning the set, to winning the match. Once Gil has said, "I'm trying to win the match", he has reached a boundary. There are no further reasons *within* the game of tennis as to why he's doing what he's doing. Thus, in response to Wil's next question, "Why are you trying to win the match?", Gil does something different. He identifies the game, a dramaturgical pattern that is logically complete and refers to nothing outside itself.

Because the game is a boundary and not a boundary condition, Wil can start a new line of questioning. He might ask Gil,

- Wil: Why are you playing tennis?
 Gil: I'm practicing for a tournament.
 Wil: Why are you practicing for a tournament?
 Gil: I'm trying to win the tournament.
 Wil: Why are you trying to win the tournament?
 Gil: I'm making a living, and that's how I do it.

When Gil answers, "I'm trying to win the tournament", he has again reached a boundary. So in response to Wil's next question,

“Why are you trying to win the tournament?”, Gil identifies an institution, another dramaturgical pattern that is logically complete. Because an institution is a boundary, Wil can start another line of questioning. At some point, however, the questioning will end at a boundary condition, a limit beyond which there is nothing. In Descriptive Psychology, a person’s total life context—living my way of life my way—is a boundary condition of this sort.

For clarity, notice that death is *not* a boundary condition. Death is an event that marks the end of life, and as such, it is *part* of the way of life. It is like the moment in tennis when the return volley hits outside the line, and it is game-set-match. All four events (ball-out, game-won, set-won, match-won) occur within the context of a dramaturgical unit (tennis), and the unit is the boundary or boundary condition, not the event itself.

As accomplices, why do we care about boundaries and boundary conditions? Think about what it means when we say that death is problematic for people. For the various kinds of problems that we know, there is a structured context within which we have the problem. For example, in the context of tennis, I can have problems like how to return my opponent’s serve, or how to drive my opponent from the net. Those are tennis problems that I solve in the context of tennis.

But what about the problem of what to do instead of playing tennis? That’s not a tennis problem. In the context of tennis, it’s a non-question. I cannot even raise it. To raise that question, I need to be operating in a wider context in which it is a question. That’s easy enough with a problem like what to do instead of playing tennis, because there is something on the other side of the tennis boundary.

“How do I want the end of my life to go?” is a life problem, and there’s a structured context in which I have that problem. If we think of a person’s life as a play with five acts, how I want the end of my life to go is simply the problem of how I want Act V, Scene IV to go.

But what about problems like “What am I going to do after death?” or “What am I going to do instead of living?” Is there a wider context within which we can raise those questions? Or

are those non-questions, perplexities being raised at a boundary condition?

People differ in whether they treat an individual's life as a boundary or a boundary condition. There is not one belief about whether there is a wider context, anymore than there is one view of the end of life. If we want to be responsive to the person who is dying, it is helpful to have a grasp of the range of possible afterlife patterns.

What are some examples of members of the set of afterlife patterns? A few top-level pairs are:

- For a modern natural scientist who takes his science literally, there is no life after life. There is simply nothing.
- For a Christian who believes that we have been saved by Christ's death on the cross, there is life-everlasting, world without end.
- For a person who believes that some people are predestined for hell, there may be an eternity of pain and suffering.
- For a Tibetan monk who is advanced in yoga and meditation, there is an opportunity for liberation from the cycle of birth and death.

And so forth.

In Descriptive Psychology, we take it that a person's total life context is a boundary condition, so where do these beliefs about what happens after life have a place? In the way of life. Believing and acting on what I believe is part of living my way of life my way.

The Real World

The real world "consists primarily of that structure of statuses which define *what* things are... It is into this framework that mundane particulars of the sort publicly identified and described are fitted." (Ossorio, 1982/1998, p. 123)

Think of the complexity and diversity of that structure at the height of a person's life, and the richness of a life in which all the

major statuses are filled. For example, imagine a young couple who have made a good marriage, have children together, have both sets of parents living, have careers, have a home, cars, pets, hobbies, interact with their siblings, school friends, neighbors, political party, religious community, etc. Their shared structure of statuses includes all of the statuses involved in all of the areas of their lives and all of the interrelationships between the statuses.

This shared world gives the young couple enormous behavior potential, but it also gives them lots of constraints on behavior potential. People who are embedded in the life and structure of their community are restricted to some degree by every part they play in every dramaturgical pattern in their lives. They are not free to treat things any way they want—or to do whatever they want—because behaviors that do not meet the standards of the community are paradigmatically ruled out.

The life of Dante is interesting in this regard. He was a man involved in the life of Florence in all of the normative ways. He was a member of a good family, a husband, a father with five children, a good Catholic, a member of the Apothecary Guild, a mediocre poet, and a small-time politician. At the age of 37, because of his political activities, he was condemned to permanent exile from Florence.

Expulsion from the life of the community is very close to death, because it wipes out almost all of a person's behavior potential (cf. the analysis of the Degradation Ceremony in Ossorio (2006, p. 269)). But notice that it also wipes out most of the constraints on behavior potential. When a person no longer has a place in the community, he or she is no longer bound by the standards that go with being a community member.

For nearly 20 years after his exile, Dante lived as a wanderer and stranger in foreign lands. With the freedom to do whatever he wanted, he wrote a *Comedy* in a new language he called "Italian". Not surprisingly given his circumstances, his *Comedy*, known today as *The Divine Comedy*, is a powerful vision of the worlds where we go after death.

Although we may not suffer the magnitude of loss that Dante experienced, we do lose many of the people whom we love as we age. To the extent that our relationships to people are “I and Thou” (i.e., we value people intrinsically), they are irreplaceable in our lives. When we lose them, their places remain empty.

We also suffer the loss of things that we love as we grow older. While they may have little intrinsic value, they are irreplaceable by virtue of their uniqueness. If the books my Mother brought from England are lost, nothing else can take their place.

Why do empty places matter in the holistic structure of our worlds? If the places are not filled, we cannot carry off the dramaturgical patterns that call for the particular people and objects who used to fill those places. As captured in the image, “Putting on *Hamlet*,” if the only person who can play Hamlet is no longer there and a theatre company insists on putting on *Hamlet*, it will be a very peculiar performance (cf. Ossorio, 2006, p. 358).

But what if the only person who plays Lady Macbeth is also gone? And the only person who plays King Lear? And the only person who plays Cleopatra? And the only person who plays Othello? As the old Irish saying goes, “When you love more people in the graveyard than you do in town, you know your time’s coming.”

When we know that our time is coming, we could hardly stay related to the real world in the same way anymore. Just as when we’re approaching graduation or approaching retirement, we begin to lose our attachment to the world that we’re leaving before our time there comes to an end.

Reality

That raises an interesting question. If more and more places in our world are empty, and we start to lose our attachment to the real world with its unique importance for codifying our behavior potential, what do we have to fall back on? What could be more fundamental than the real world?

Under most scientific ideologies, the answer is “Nothing.” The ordinary real world is all that there is. But in Descriptive Psychology, we have the pragmatic notion of *reality*, “the boundary condition on our possible behaviors”.

What is the difference between the real world and reality? Consider two individuals with different ways of being in the world. The first individual is aware of what’s around him and what that enables him to do. If he looks around and sees that there’s no one there to play Hamlet, he doesn’t try to put on Hamlet. The things that are around him provide him with possibilities and set limits on what he can do.

The second individual is focused primarily on what she wills to do, and only secondarily on whether she’s able to carry that off. “Being able to carry it off might reduce to the question of ‘Did she have the right objects around her?’, but it might not” (Ossorio, 1977, p. 294). Her question is simply, “Can she carry it off in any way whatever?”

For the first individual, there is a systematic framework in which he has a place, and all the objects, processes, etc. he observes have a place. His place in that framework is given, and it is his relationships to the objects, processes, etc. around him that provide him with possibilities and limitations. We will call him the Relationship/Status Man.

For the second individual, there is “*nothing* that is a priori given” (Ossorio, 2006, p. 294), neither her place nor places for objects, processes, etc. Instead, she is like a playwright writing a play. She is maximally free to create any set of objects, processes, etc., that will give her an embodiment of the pattern that she has in mind. We will call her the Dramaturgical Woman.

(Reading this, it would be natural to think, “I’d sure rather be the Dramaturgical Woman. That poor Relationship/Status Man seems like he’s stuck in a world of mundane particulars, limited by all the things around him, while the Dramaturgical Woman can do whatever she can get away with.” That’s the right sort of contrast but the wrong significance, so I will flip the contrast and present

it the opposite way. Remember our young couple at the height of their lives, delighting in a world of divine particulars, enriched by all their I-Thou relationships, leading fulfilling lives. They are the Relationship/Status couple. Contrast them with Don Quixote. He was a man with a vision—who cast any old objects for helmet, horse, and lady—and was beaten up and carried home in a cage. He couldn't get away with being a knight. He's a Dramaturgical Man.)

The *contrast* between the two individuals—the Relationship/Status Man and the Dramaturgical Woman—is very close to the *contrast* between the real world and reality. In the real world and in the Relationship/Status Model, the structure of statuses is taken as *given*, as simply being the case. With the concept of reality and the Dramaturgical Model, *nothing* is taken as given. Rather, the anchor is simply, “What can you get away with by way of behavior?”

What does this contrast have to do with being an accomplice? Recall the question that we raised earlier: What do we have to fall back on when we're dying? When we're disengaging from the real world? When we're no longer bound by our relationships to objects, processes, etc. in the real world? The answer is ourselves as playwrights, ourselves as scenario-creators, ourselves as Dramaturgical Persons.

Ossorio (2006) notes that the Dramaturgical Model may be taken as an “alternative formulation” of the Relationship/Status Model (p. 259). It is easy to see this when we have the Dramaturgical Woman and the Relationship/Status Man in mind. If the Dramaturgical Woman *succeeds* in bringing off her scenario, she has created a world in which that scenario is possible, i.e., she has created a structure of statuses that defines what things are, and that is the world of the Relationship/Status Man.

We can therefore add one additional answer to the question, “What do we have to fall back on when we're no longer bound by our relationships to objects, processes, etc. in the real world?” The answer is ourselves as world creators. Dante's life is a powerful reminder of this concept. Having been exiled from everything he loved, having left behind almost everything that gave him behavior

potential, he fell back on his extraordinary ability as a creator of worlds.

Dreams

The concepts of reality and reality constraints are also helpful in understanding dreams. Consider dreaming as one of a variety of ordinary activities for problem-solving, such as realistic problem-solving, brainstorming, fantasy, daydreaming, etc. These activities differ in the degree to which reality constraints are relaxed when we engage in the activity (cf. Ossorio, 1982/1998, p. 72).

With realistic problem-solving, strong reality constraints are operative. The solution we generate needs to be one that we can act on in the real world. It needs to be practical, logical, responsive to what's there, etc. But when we are dreaming we do not have to be logical; we do not have to preserve real world consistency; we do not have to worry about sequence of events, continuity of characters, consistency of place, etc. In short, we operate with maximal freedom from reality constraints. Activities like brainstorming, fantasy, and daydreaming fall between these two extremes.

If we place these activities on a continuum (see Figure 1), the contrasting ends of the continuum correspond to the distinction that we have been making between the real world and reality. At one end we have the heavy reality constraints that go with behaving in the real world. At the other end we have the freedom of a boundary condition, where we do not know what our constraints are, only that there are some.

What we do when we're dreaming is similar to the description of what the Dramaturgical Woman does. We have a scenario, a behavioral pattern in mind, and we stage it for ourselves in our sleep. We cast whomever and whatever comes to mind for the characters, props, and settings, and see if we can bring off the scenario. We have this freedom because we're asleep, and we're not engaging in behavior in the real world. Under these conditions, all kinds of things

are loosened up, so we may be able to enact a behavior pattern that we did not think of as possible for us when we were awake.

When we wake up and remember the dream, the play that we staged in our sleep may not make sense. To understand the dream, we need to “Drop the details, and see what pattern remains”. If we are able to see the pattern, then we can check to see if that idea can be applied to our real life situation. (See Roberts (1985b, 1998) for more in-depth discussions of dreams and dream interpretation.)

As an example of this method of interpreting dreams, consider the famous “Dream of Clarence” in Shakespeare’s *The Tragedy of King Richard III*. When he has the dream, Clarence is imprisoned in the Tower of London due to the maneuverings of his younger brother Richard. Richard is willing to do whatever it takes to be the King of England, including disposing of Clarence. In the first part of the dream, Clarence and Richard are on a ship, recalling old times together, but then Richard “stumbles”, pushing Clarence overboard. Clarence recounts:

*Lord, Lord, methought what pain it was to drown,
 What dreadful noise of waters in my ears,
 What ugly sights of death within my eyes!
 Methought I saw a thousand fearful wrecks,
 Ten thousand men that fishes gnawed upon,
 Wedges of gold, great anchors, heaps of pearl,
 Inestimable stones, unvalued jewels.
 (Shakespeare, 1592/2000, p. 195)*

In recognizing the pattern portrayed in the dream, some context is helpful. *The Tragedy of King Richard III* was written in the late sixteenth century, when British trading companies were flourishing, bringing back gold and jewels from the New World. Thousands of commoners in England took jobs as sailors and made their living on the trade ships. Some of these ships sank, but from the point of view of the trading companies, that was just the price of doing business. The men, gold, and jewels that went down with the ships were expendable, a calculated loss for the companies.

The pattern that Clarence portrays in the dream is one of joining the innumerable collection of valuable objects at the bottom of the sea, his status reduced to that of just another calculated loss. Shakespeare's audience was sensitive to the pattern of valued men (brothers, sons, husbands, fathers) being treated as dispensable objects, and they would have easily recognized the significance of the dream.

But as accomplices, why do we care about dreams? As people get closer and closer to death, they may enter a state in which they are described as “confused”, “disoriented”, “incoherent”, etc. In this state people talk in ways that don't seem to make sense. The usual medical explanations for the person's “confusion” include anoxia, toxicity, medications, stress, the progression of the disease, etc. The alternative, quasi-religious explanation is that the dying are glimpsing the world beyond, and if we listen closely to them, we may gain understanding about “life after life”.

In contrast to both of these approaches, as accomplices we can understand the dying as doing what people do naturally, i.e., creating scenarios, but at a point in their lives where ordinary reality constraints no longer carry that much weight. If we interpret what they say in the way that we interpret dreams, we may be able to see the sense that they make and respond in mutually satisfying ways.

For example, within an hour of my father's death, a nurse came into his room to turn him. He asked her distinctly, “Are you from the Third Battalion?”, but she laughed heartily and responded, “This isn't World War II.” He affirmed, “I'm not going that far back”, but she continued to treat him as disoriented, and he withdrew into himself.

While she was in the room, I agonized over what he meant: “Are you from the Third Battalion? *What* Third Battalion?” Finally I let go of that detail and the pattern hit me: he must have decided to face death in a company of fellow soldiers, and he was waiting for them to come for him. After the nurse left the room, I reassured him: “She was just a nurse, but the Third Battalion will be here.” He seemed very relieved and came back into contact with us.

One reaction to this kind of example is, “How do you know it’s *true* that he was hoping to go out as part of a company? How do you know that that’s what he was *really* doing?” It is a matter of having the judgment and sensitivity to see what it looks like, not a matter of knowing for sure. As Ossorio (2006) expresses it in the context of a different example: “It isn’t necessarily true (it doesn’t follow from the facts given) but it is obvious—*it looks that way*—and people do see it.” (pp. 172-173)

Ordinary Mysteries

“Ordinary mysteries” are phenomena that we encounter in the course of life that initially seem puzzling or mysterious, but lose their magic once we have understood them (Ossorio, 2006, p. 310). The dreamlike communications of the dying are one example, and several other examples will now be discussed.

Special Abilities

Some people, even though they are so close to death that it seems that they could not possibly have any capacities left, have some remarkable abilities. They are able to wait for a person to arrive or to wait for a particular event to happen. They are able to call a person to come to them or notify a person who could not be there that the death is occurring.

Needless to say, these are not described as abilities, special or otherwise, by most scientists. The phenomenon of waiting is dismissed as spurious, since there are no hard data to support it. The phenomena of calling a person to come or notifying a person of the death are dismissed as totally bogus, because there is no conceivable mechanism of transmission. But hospice nurses, who have personal contact with different people dying different deaths, see all of these phenomena.

For a moment, imagine that we have hard scientific data that shows, at the .001 level of significance, that dying people are able to

wait for a specific event, such as someone arriving at their bedside, someone leaving the bedside, or the occurrence of an anniversary or holiday. How would we explain that? First, we need to drop the requirement that we give a physiological explanation. It is hard to imagine any physiological explanation being plausible, given that the body is close to total failure. The person is anoxic, toxic, terminally exhausted, etc.

So what is a possible explanation? Simply that the dying person is free of some of the constraints that our embodiment imposes on us. With this freedom, the person is able to wait for a person or an event, even though we would not have thought it was physically possible.

What about the other two abilities, i.e., calling a person to come at the time of death or notifying a person that the death is occurring? While there are no experimental studies of those abilities, there are a number of anecdotal reports. If those reports are real, how would we explain them?

We couldn't explain them if we restricted ourselves to the laws of physics, just as we couldn't explain waiting if we restricted ourselves to the laws of physiology. But when we're using the concept of reality and the Dramaturgical Model, we are not restricted to any laws of physics whatsoever. Physics is another game that people play, one that does not have a place for these sorts of phenomena.

What would a reality-based explanation look like? One candidate is that all of us are in principle in contact with each other, but at a level that we do not normally respond to, a level that ordinary reality constraints block out. If people have access to this level when they are dying, that may explain why they are able to call a person to come to them, or say goodbye to an absent person at the hour of their death.

Why does this matter to an accomplice? Although an accomplice is basically irrelevant in these situations, there may be opportunities to support the dying person in the exercise of these abilities. For example, if a special person is on the way to the bedside, the accomplice can keep the dying person apprised, e.g., "She's at the airport" or "He's on the shuttle". The person *in extremis*, even in a

coma, may hear, and it may help him or her to wait a little longer. If a person who is not there feels that he is being called and telephones to say, "I think I'm losing it. I *felt* Mom call. Isn't that crazy?", the accomplice can say, "No, it's not crazy. Come now if you can." If a person who could not be there says that she had the "weird experience of knowing exactly when Dad died," the accomplice can legitimize it. That's what the dying person wanted.

Companions of Uncertain Status

When the going gets tough, the dying may get companions of uncertain status, like a loved one who has already died, a religious figure, an old friend, an old pet, et al. These companions are not unusual at the end of life, but they are usually pre-judged out of the play. Just as the ability to wait is regarded as spurious, and the ability to call is dismissed as bogus, companions of uncertain status are treated as hallucinatory.

The following advice about dealing with hallucinations is from a reasonably good handbook for caregivers: "Although not unusual, hallucinations can be very upsetting. Do not humor your loved one. Gently describe what is really happening. Explain that what he or she is experiencing is a natural result of either the illness or the medications being taken" (Fairview, 1999, p. 68). As accomplices, we can do better than that, treating the companions in whatever way seems best for this particular person. That may mean explaining them away, but it may not.

With the Dramaturgical Model in mind, it is easy to understand the appearance of such companions at the end of life. In this Model, a person is focused primarily on the scenario that he or she wants to bring off, and only secondarily on whether real objects, processes, etc. are available. In this situation it would not be surprising if a companion appeared who was just right for one of the parts.

Listening to what the dying person says about the companion may give an accomplice clues about the scenario in progress. It may be an old, familiar scenario and be easy to recognize if you know

the person. Recall all of those empty places discussed earlier, places once filled by people who had intrinsic value for us. Even if people have not put on *Hamlet* for 50-60 years, that may be the play that they want in their last days. If *Hamlet* appears at the bedside, think of the violation it would be to trivialize that by attributing it to medication or illness.

Callanan and Kelley (1993) give a beautiful example of a woman who had been in a coma for several weeks, “but moments before she died, she awoke, broke into a beautiful smile, and reached for something unseen. She put her arms together and looked down joyfully, as if cradling a baby. She died in that posture with a look of happiness on her face” (p. 179). Her son recognized that she was holding her first born child, who had died just moments after birth.

Companions of uncertain status will not be discussed in depth here, but it is worth noting the place that they have on the reality constraint continuum (see Figure 1). These companions are right up next to realistic problem solving, because they are perfectly tailored to fit the ordinary real world and violate reality constraints only minimally. (See Roberts (1991) for a paradigm case formulation of the companions of the dying.)

The Problem of Understanding a Person’s Death

We have been focusing on the end of life drama, but this drama is only one scene in an entire lifetime. If we want to understand the significance of the final scene of a play, we need to look at that scene in the context of the whole play. Similarly, to fully understand the significance of the end of a person’s life, we need to look at the end in the context of the whole.

Why is this a problem? Because life is not over until it’s over, and we don’t know what it is until it’s over. As long as people have some time left, they can make changes that affect the significance of their lives as a whole. The problem of understanding a person’s death is the problem of understanding a person’s *complete* life, and

the problem of understanding a person's complete life is that it is not yet complete.

You might be tempted to play the devil's advocate and ask, "Is that really a problem?" For many people, probably not. What they do in the face of death is simply a natural continuation of what they've been doing. But for some people, what they do in Act V, Scene IV gives a different picture of their whole lives.

We will now look at some examples of people replaying old patterns, rewriting their history, and doing something different at the end of their lives. Two of the three examples are drawn from literature. Because the dying can only give us clues about the scenarios that they are creating, it makes sense to turn to gifted scenario-creators, i.e., writers, who can fully envision and express what a dying person might create.

Replaying Old Patterns

For some time he lay unconscious, and then suddenly he cried out: "Order A. P. Hill to prepare for action! Pass the infantry to the front! Tell Major Hawks..." then stopped, leaving the sentence unfinished. Once more he was silent; but a little while after he said very quietly and clearly, "Let us cross over the river, and rest under the shade of the trees," and the soul of the great captain passed into the peace of God.
(Henderson, 1898/2000, pp. 114-115)

This is the death of Stonewall Jackson, a Confederate general during the American Civil War. It is easy to drop the details and see the pattern that remains here. What is Jackson doing by saying, "Let us cross over the river, and rest under the shade of the trees"? He is leading his troops to rest. We can see that Jackson was a general to the end and enacted his signature-scenario as an officer who took care of his troops. His death completes his life in a fitting way but does not change its significance.

Rewriting History

“Rewriting your history” is the name of an exercise sometimes used in Descriptive psychotherapy. It is for people who have histories that do not fit who they really are, and the instructions are simply to “Write a history that does fit you.” The exercise doesn’t work with people who insist that their histories are unchangeable. It is surprisingly effective with people who understand that what we do in later acts of our life play can make an *ex post facto* difference to the earlier acts of the play.

Borges’ short story “The Other Death” is a beautiful example of a person rewriting his history at the end of his life. In the story a young man named Pedro Damián had lost his nerve in the battle of Masoller. He then spent the rest of his life waiting for another battle in the hope of changing the significance of that shameful incident in his life.

For forty years he waited and waited, with an inarticulate hope, and then, in the end, at the hour of his death, fate brought him his battle. It came in the form of delirium, for, as the Greeks knew, we are all shadows of a dream. In his final agony he lived his battle over again, conducted himself as a man, and in leading the last charge he was struck by a bullet in the middle of the chest. (Borges, 1949/1973, p. 179)

In creating this scenario *in extremis*, Damián is affirming that “what he is now is what, ‘after all,’ he was all along.” (Ossorio, 2006, p. 270).

Doing Something Different

A classic example of doing something different at the end of life is portrayed in Tolstoy’s story, “The Death of Ivan Ilych”. It influenced such remarkable films as Bergman’s *Wild Strawberries* and Kurosawa’s *Ikiru*, as well as Chekhov’s short story, “Rothschild’s

Fiddle". All are powerful portrayals of people changing the significance of their lives by what they do at the end.

Ivan Ilych is a petty official who has lived his life within rigid constraints. At every point he has done the done things, making his official duties the center of his world. His relationships to his wife and son are purely rote; he works to minimize his contact with them. But then he becomes ill, realizes that he's dying, and struggles to maintain his belief that his life has been good. He spends three days in an intense struggle in a black hole, until finally he sees his way clear.

At that very moment Ivan Ilych fell through and caught sight of the light, and it was revealed to him that though his life had not been what it should have been, this could still be rectified. He asked himself, "What is the right thing?" and grew still, listening. Then he felt that someone was kissing his hand. He opened his eyes, looked at his son, and felt sorry for him. (Tolstoy, 1886/1960, p. 155)

This is an example of how when we are dying, we not only lose our attachment to the real world. We also lose our attachment to our *place* in the real world. Once we are dying, we are no longer bound in the same way by our part in the real world drama, and hence we may do something that does not fit the part that we have always played.

What is Ivan doing by struggling in a black hole? Tolstoy tells us that he is struggling against the realization that his life has not been right. What is he doing by seeing that his life hasn't been right? He's freeing himself from his old place in the world and from the constraints that have kept him from really living. Ivan's final act is to see his son and wife as fellow persons and to act with them in mind. Playing that part at the end of his life, even just for a moment, gives us a different picture of his whole life.

An Infinite Relativity Set

In Table 1, each of the deaths that we have discussed has been added to the relativity set of dramaturgical pattern/person characteristic pairs that we introduced in the first section of the paper. Because the set is infinite, the table is intended only as a starting point to sensitize accomplices to a few of the possibilities.

Only one of these scenarios involves the paradigmatic scene with the family. This could be a sampling artifact, but it could also be that treating the dying as scenario-creators opens our eyes to a wider range of possibilities.

Reminders

Conceptual clarity is important for an accomplice, but there is a reality constraint that cannot be underestimated. Sleeplessness and the pain of loss can leave an accomplice in a fog, forgetful of what's most important in the situation. I will therefore end with a few simple reminders that I hope capture the spirit of being an accomplice.

Relax and enjoy the person's company.

One way that accomplices can go wrong is to slip into thinking, "If only I do the right things, I can enable the person who is dying to have his or her own death." Another way that accomplices can go wrong is to think the converse: "If things are not going the way that the dying person wants, then I must be failing to do the right things."

Being an accomplice is not about *doing* the right things, nor is it about *failing* to do the right things. It is about appreciating a very particular, personal, I-Thou relationship with the person who is dying. This relationship is what makes all the things that an accomplice does make sense, and it is why being an accomplice is intrinsically satisfying.

In reality, accomplices do not have that much influence on how things turn out. People may be good accomplices, and yet the death of the person doesn't turn out the way that the person wanted. As

Nuland (1993) expresses it, “Occasionally—very occasionally—unique circumstances of death will be granted to someone with a unique personality, and that lucky combination will make it happen, but such a confluence of fortune is uncommon, and, in any case, not to be expected by any but a very few people.” (p. xvii)

Even if the death turns out exactly the way that the dying person wanted, there may be no way for the accomplice to know that. At best, accomplices relax and enjoy the times of mutual understanding and presence, affirming dying persons in whatever scenarios they create to complete their lives.

Stay in contact with the person and be responsive to him or her.

People who are dying may remain very much in touch with those around them, even as other objects, processes, etc. in the real world fade away. If the dying are in a dreamlike state, they may still cast *actual* people for parts in the scenarios they create. They may also judge how well those people are playing the parts to which they have been assigned, and negotiate with them about the places and the corresponding standards. In this way, they may remain mutual status assigners with the living, even though they no longer fully share the real world. (See Roberts (1985a) for a conceptualization of persons as mutual status assigners.)

In the last days of my father's life, he explored a variety of scenarios related to how he wanted to face death. At one point he opened his eyes, looked at me, and said, “You can be the horse.” I knew that I was being offered a part in a drama that he was envisioning, but what part? So I asked him, “What's the horse for?” (i.e., “What's the pattern?”). He replied as if it were obvious, “To pull the chariot.” I realized that he was thinking of facing death like Ben-Hur, and I replied gently, “Okay, but easy on the whip.” We laughed together, and after awhile, he announced, “That wasn't a good idea.” We could not have shared these moments if I had not been responding to him as a fellow scenario-creator and status assigner.

Accomplices give their utmost to maintain contact, to understand what the person wants, and to help the person achieve whatever it is that is wanted.

Don't usurp the dying person's place as a world creator.

When a person enrolls in Hospice, that person is automatically cast in the role of Patient, and a family member is cast for the role of Primary Caregiver. What's wrong with that? Imagine that you went to see *Hamlet*, and it was an excellent performance. But in the last act, last scene of the play, the actors abruptly switched to the last scene of *Macbeth*. You'd probably be frustrated because you'd want to see the last scene of *Hamlet*.

Being in Hospice can be like switching to the last scene of a different play in the last scene of your life. Regardless of what has gone on before, and regardless of who you are now, you need to fit the role of Patient and a loved one needs to fit the role of Primary Caregiver. These cookie cutters are grossly violative of individuals, and may interfere with people completing life, and their life together, in a way that is fitting for them. The Primary Caregiver, trying to do a good job as a Primary Caregiver, may insist on treating the dying person as a Patient, when that is *not* a part that the dying person wants to play.

Instead of taking a cookie cutter approach, accomplices offer care from any mutually acceptable position in the world of the dying person. Position titles may run the gamut from Devoted Partner to Sensual Lover to Friend in Need, from Fellow Pilgrim to Faithful Squire to Royal Helper, from Soul Mate to Mire Mate to Teammate, and on and on. Accomplices can change status as the dying person's world changes, which can be fulfilling (and fun) for them and for the dying person.

Don't be a zombie.

When people are in a dreamlike state at the end of life, time may cease to exist for them; sleep may no longer be a necessity; and they may lose their awareness of the way that daily cycles

affect other people. While the dying may be exempt from these reality constraints, accomplices are not. They cannot enjoy being accomplices if they are zombies from lack of sleep, so they seek a balance between being with someone who is dying and taking care of themselves.

Remember that “Value distributes over possibilities”.

Consider a child who loses a marble and treats it as a major tragedy. From an adult point of view, the child is reacting very strongly to something that is a very small matter. Consider a society hostess who is devastated that a certain someone didn't attend her party. Both are examples of people treating things as life and death matters that to other people are obviously trivial.

The child and the socialite are living in restricted worlds, and all of the value that they are capable of giving to things is given within that world. Because they are limited to that narrow scope, some things are extremely important to them, even though they are trivial in a more realistic framework. Within that narrow scope, they *are* that important.

When a person is dying, his or her world becomes increasingly restricted, and the person may get very upset about minor mishaps. If the accomplice looks at the mishap only from the perspective of the real world, it probably won't seem so significant. It may be hard to understand why it's such a big deal.

Instead, accomplices remember that “Value distributes over possibilities”. The dying person is like an athlete in the thick of competition, putting his whole life into winning this particular game. After the game is over, the athlete regains the perspective of his world as a whole, but the dying person may have few other meaningful possibilities. Bringing off the current scenario may *be* his or her life.

Conclusion

In seeking to understand and be with a fellow person who is dying, an accomplice must pass between Scylla and Charybdis. On the one side is the monster of modern medicine, explaining everything in physiological terms. On the other side is the whirlpool of psychological theories, dictating how everyone should die. The Dramaturgical Model gives an accomplice the power and freedom to avoid both these perils.

I have used the Dramaturgical Model to understand the dying as scenario creators, creating the last scenes of their lives. Sometimes the dying enter a dreamlike state as they get nearer to death and their reality constraints are more relaxed. If we treat their communications in this state as we would dreams and look for patterns, we may be able to appreciate the final scenarios that the dying create.

Having an adequate explanation of this sort empowers an accomplice to be with the dying person in an I-Thou way, without succumbing to the overwhelming force of physiological explanations and without slipping into “one size fits all” ideologies.

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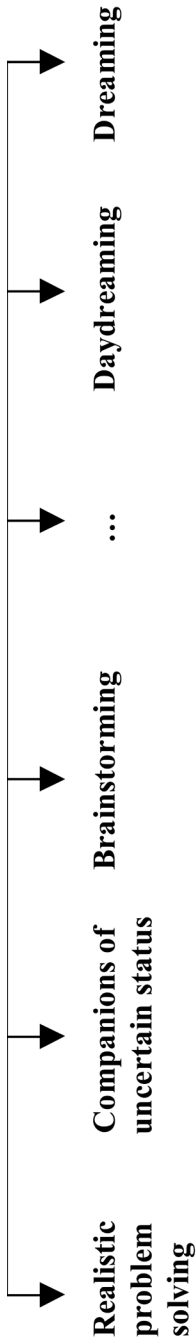
Author Note

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Table 1. Relativity Set

<i>Pattern in the face of death involves ...</i>	<i>Person characteristic</i>
standing “on guard oath-bound”	Irish poet with an indomitable will
raging against the dying of the light	Welsh poet who lived colorfully and recklessly
progressing through stages	Swiss psychiatrist who took Freudian theory seriously
being reduced to the status of a commodity, a dispensable object	English nobleman who treated others as Thou
marching out in a battalion with other men	Man who appreciated the value of being with a corps of men
cradling her first-born child	Loving mother whose first baby died minutes after birth
leading his troops to rest in the shade	Southern general who took care of his troops
fearlessly leading the last charge of the battle	Argentinean man who lost his nerve in battle when he was barely twenty
acting with the interests of his son and wife in mind	Russian bureaucrat who lived by rote, doing all the done things
...	...

Figure 1. Relaxation of Reality Constraints



Introduction to Part Two: World Construction¹

Keith E. Davis, Wynn Schwartz, and Fernand Lubuguin

These concepts: proposition, language, thought, world, stand in line one behind the other, each equivalent to each. (But what are these words to be used for now? The language-game in which they are to be applied is missing.) (Wittgenstein 1953, p. 44e)

The etymology of the word “world” involves the Old English word “woruld” or “worold” which meant roughly “human existence, the affairs of life” or “the course of a person’s life.” (Oxford English Dictionary, 1989)

“Worlds” and “world construction” were there at the beginning of Descriptive Psychology (Davis, 1981). But the canonical presentation of these distinctions came in Ossorio’s (1971/1975/1978/2005) *“What Actually Happens,”* and in Mary Roberts’ (1985) “Worlds and World Reconstruction” where she laid out the ways in which dreams and stories might function in world reconstruction. In this section, we have an opportunity to see elaborations and advances in the applications of these distinctions. We shall briefly enumerate some of the major developments.

In *“What Actually Happens,”* Ossorio (1971/1975/1978/2005) observed that:

From the pictorial perspective...what distinguishes the real world from merely possible worlds is that certain descriptions (“pictures”) are applicable to what we observe, and these descriptions contrast with other descriptions which do not apply to what

we observe but which might have applied . . . in some possible worlds.

From the methodological perspective, what distinguishes reality from mere possibility is that we are (in fact) limited in what we can and can't do in just those ways in which we are (in fact) limited, and not in any of the other ways in which we might possibly have been limited.

As the boundary condition on our possible behaviors, reality in no way *resembles* the scenes we see as we look around us. . . . In a similar . . . vein, the English language does not resemble the English sentences that we speak. This is because [they] are categorically different from each other. (2005 ed., p. 33-34)

In elucidating this distinction, Roberts (2010a, p. 234) writes “The primary point of having a framework [that is a holistic structure] is that it codifies possibilities and non-possibilities for behavior. . . what we can do and cannot do.” Notice that this is a different way of thinking about reality and what is real. Here what is real is what I can participate in – in some meaningful way – or what practices I can successfully engage in. The real world is NOT just what seems to be out there independent of us. Descriptive Psychology’s (hereafter DP) making a formal distinction between the real world—the totality of behavior patterns—and reality as the boundary condition on possible behaviors gives it significant power in the understanding of revolutions in the physical sciences (Roberts, 2010a) and in the literary world (Roberts, 2010b). Within this distinction, it is perfectly possible for two individuals to have different worlds (what is real to them) and yet be subject to the same reality constraints, such as not being able to wish the world to be whatever their heart’s desire or be able to fly by flapping one’s (unaided) arms. Inventions of new social practices such as the *comedia nueva* by Lope de Vega opened up the possibility that Cervantes could write prose novellas instead of devoting himself entirely to the imitation of classical poetry and

drama (Roberts, 2010b). This was a tremendously liberating insight. Analogously, to see, after reading Ossorio's use of Garfinkel's (1956) degradation ceremony as a substantive device for making manifest the utter ridiculousness of deterministic arguments about human behavior, is likewise to have one's behavior potential freed from error (1975/1978, pp. 130-137).

Any conceptual framework will have ultimates, things taken to be fundamental in the sense as being unquestioned givens. It will also have options, possibilities within its framework, and things that are literally unthinkable in that world. In Roberts' analysis of several instances in the history of astronomy, the fundamental given was that celestial orbits had to be circular because it was the perfect celestial orbit and God would not have settled for less than perfection. Kepler's innovation was to recognize that most of the observed celestial orbits were elliptical and that man did not need to place arbitrary limits on what God had wrought. He thereby eliminated the need for complex adjustments in calculations to keep the orbits circular. Once non-circular orbits were no longer unthinkable in the sense of being something that God would not have allowed, astronomers could proceed with more precise and accurate maps of the heavens.

It is common to ask, "Well, in just what sense do you mean 'world construction'?" Ossorio (2010, p. 220) flatly takes the position that within DP, it is taken literally, not metaphorically. In taking this position, he is agreeing with Wittgenstein (1953) as he is quoted at the beginning of this introduction. If one's mental image of the process of world construction is akin to that of constructing a building or a kid's construction of a tinker-toy model, then that leads one in the wrong direction. It is not that we have assorted objects out there to be put together in different and new ways. In the world, we create the states of affairs that we have observed or invented because we have the competence to find or invent them. Being born into a human community provides one with these resources initially and each of us has the potential to add to the community's store of practices (Putman, 1981). Constructing alternative worlds to

those we have received requires, conceptually, the ability to invent new “forms of life”—new social practices. And we do this as we behave. We may create new forms of behavior and thus create new possibilities for ourselves.

In one sense, if taken as a process, this is mysterious because we cannot see how to get from A to Q. If, however, our models for this are like a task analysis, in which an end state Q is identified and the steps necessary to get there analyzed until we can see the entire pathway, we have a more appropriate model of what happens in world construction or reconstruction. Sometimes, the sources of insights come from dreams, day-dreams, brain storming, or more convention problem-solving, and the net result is that we can now do something that we could not do before and that is an expansion of a person’s behavior potential. “I do not routinely reconstruct my world by doing something to make it different from what it was before. Rather, I do it by discovering that it already was different from what I had taken it to be.” (Ossorio, 2010, p. 222). DP is concerned not merely with human inventiveness, as important as that is, but also with providing systematic tools, concepts, and procedures for evaluating and sharing new social constructions. Its history of success in these areas is well documented in Ossorio (1983/1985) and in the various inventions of the members of the Society for Descriptive Psychology.

An important conceptual resource in DP is the elaborated versions of the Actor-Observer-Critic model of self-regulation (first presented in Ossorio, 1981, pp. 58-59, and developed more fully in 2006). The gist of this model is that:

Actor, Observer, and Critic are the designations for three jobs that persons master and that are fundamental to their behavior. The job of Actor is to “do one’s thing”, to create one’s behavior out of nothing. The job of Observer is to note how things are going, what is the case, what is happening, etc. The job of Critic is to evaluate if things are going okay, diagnose the problem if they are not going okay, and prescribe what to do differently as needed. The three

jobs form a feedback system. As Actor, I initiate a behavior. As Observer, I monitor its course. As Critic, I evaluate and feed the evaluation back to the Actor. My participation in any behavior pattern is a matter of doing all three jobs simultaneously. (Roberts, 2010a, p. 241-242).

What is the final component needed beyond the AOC roles to accomplish world construction? To change one's world is to change the status or place that one gives certain elements of that world and this is accomplished first and foremost by treating those elements in a new way compatible with their new status (Ossorio, 1976; Schwartz, 1979, 2008). Example: When Jack falls in love with Jill, he now is disposed to treat Jill as "his one and only," as the "beloved whose well-being is central to him" (See Bergner, 2000; Best, Bergner, & Nauta, 2003; Davis & Bergner, 2009; Hegi & Bergner, 2009). Falling in love is not something that, typically Jack has chosen to do; rather it happens to him. It is not necessary at all that Jack has acquired evidence that Jill is worthy of his love. Indeed it may be love at first sight and thus no evidence of any sort could be relevant. From the actor's perspective to fall in love is to make a status assignment—"she is the one." If she reciprocates his interest and affection, they are off on the (potentially bumpy) road to a love relationship, each behavior and social practice that they mutually engage in will either move them along that course or not. Later one may learn that Jill is impossible to live with, or Jack impossible to trust, and—that, at best, one is in a doomed love affair. Observers and critics (laymen, therapists, etc.) may process this relationship in terms of its deficiency against our notions of a good love relationship and or whether it should still be treated as a case of true love at all. That is separate from the actor's appraisal and his or her behavior toward the beloved.

To be in love is to acquire new behavior potential in that (a) one's own behaviors toward the other now have new significances (Bergner, 2000); for example, as making love versus having good sex; as building a future together vs. having fun together; etc. (b) To

be in a reciprocated love relationship is ordinarily to be able to count on the other's full support, hence one seems able to do things that one could not do before. The powerful impact of these new behavior potentials attendant upon being in a love relationship helps to provide an explanation for the observed difficulties that people have in leaving otherwise bad love relationships. ["A person will not choose less behavior potential over more." (Ossorio, 1982/1998, Maxim C2, pp. 49-54)] As long as they are still in love, they will discount abuse ("he does it because he loves me" or "he does not really mean to hurt me"). They will continue to insist on being treated as a lover even though the partner treats the relationship as over. Stalkers of many sorts fall into this last set of cases—even when the relationship that they are attempting to maintain is an illusion from the start (Davis, 2006).

To complete Ossorio's analysis of world construction, we turn to the notion of a person's life as "a history of deliberate actions in a Dramaturgical pattern". (2006, p. 69; See pp. 259-308 for an elaboration of this). It is crucial that one not take this as a stipulated definition but rather as a paradigmatic statement. Of course persons are NOT engaging in deliberate action all the time. Sometimes they are asleep, unconscious, etc. and most everyday behavior does not require deliberation in the sense of having to think about what one is going to do before doing it. In actor mode, we simply do what the situation calls for, act on our desires, and think about alternatives only when we fail to obtain the outcomes that seemed both desirable and possible. We may be on automatic pilot until a difficulty arises. The concept of Deliberate Action is relevant because, in principle, a person can specify what he is or was doing and what his reasons were. Not to know what one is doing and why casts doubts on one's competence to be a member in good standing in the community.

In producing a drama, one has all the resources before one. One casts the persons available for the parts; one identifies non-personal props as needed—using imagination—and puts the play on. As Kantor (2010) and numerous other students of children's imaginative play have observed, the capacity for creating dramas is

well developed by 3 to 4 years of age (Piaget, 1962; and Roopnarine, Johnson, & Hooper, 1994). What is unique about Kantor's contribution is the way in which he reveals the development of important conceptual accomplishments for becoming an effective, well-functioning adult. Children, during play, develop the distinction between their own perspective as actors and those of others including observers and critics. Indeed working through the implications of having been told "No" is one of the recurring themes of children's play. Likewise, they come to see themselves as directors of the play, capable of casting other persons (and themselves) in specific roles and treating parts of their observed world as props necessary to the current drama. Likewise, they become members of diverse communities. Kantor does a marvelous job of integrating the diverse literature on play and showing the value of a Descriptive formulation to the question of play's necessity to children's development into successful members of their communities.

Roberts (2010a & b) offers two thoughtful and penetrating discussions of world construction in this section. In "An indeterminate and expansive world," she applies the fundamental distinctions of "reality" and "the real world" to understanding several important cases in the history of physical sciences (astronomy, chemistry), showing how these distinctions serve to illuminate the development of significant revolutions in scientific theory and practice. She also continues a case first made by Ossorio (1975/1978) for the behavioral sciences being the foundational sciences. Because the real world that we live is a behavioral world, engaging in scientific theorizing and research is clearly a case of engaging in a set of social practices recognized within a human community. She returns to a theme of hers concerning imaginary companions and shows briefly the parallels between imaginary numbers in mathematics and having an imaginary companions in certain highly stressful life situations.

Finally she completes her work on world constructions by going entirely outside of the history of science or standard topics in psychology to take on the interpretation of one of the world's

great literary masterpieces, Cervantes's, (1605, 1615/2003) *Don Quixote*. Drawing on her previous work in dream interpretations and scholarship—both hers and those of others (Madariaga, 1961; Nabokov, 1983; & Ortega y Gasset, 1961)—concerning Cervantes' life and the reigning court culture of the time, Roberts makes a persuasive case for a shift in Cervantes worldview from that dominated by the knight-errant whose lust for fame and recognition gave way to a more Catholic appreciation of his place in the world. Instead of attempting to succeed by engaging in social practices that were no longer congruent with the demands of his society, he moved to the view of Sancho that it is best to do what comes naturally to one, which in his case was the creation of very funny variations on standard literary vehicles that he transformed into the first prose novel.

These papers offer wonderful insights into the conduct of science as a human activity rooted in communities, in the role of personal creativity both in science and literature, and in the foundation for creativity that is laid by children's imaginative play.

Footnotes

1. Through good fortune, Anthony Putman found a copy of the original and complete text for Peter Ossorio's "Out of Nowhere" talk. Although a transcription of the talk was published in *Advances*, Vol. 8, we are pleased to now be able to publish the complete manuscript that Dr. Ossorio used when giving his talk. Especially in Section 10, it presents invaluable material that he omitted in the interests of time. Because we have summarized many of Ossorio's key points in our introduction (Davis & Begner, 2006) to the earlier published version of "Out of Nowhere," the comments here draw their primary focus on the hitherto unpublished material.

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Out of Nowhere: Thoughts and Thinking and World Reconstruction (Complete Version)¹

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In this discussion my aim is to bring together, in greater detail than previously, some general notions that have been used in Descriptive Psychology formulations for many years. Among these are “thoughts”, “Actor-Observer-Critic”, “world reconstruction”, “world construction”, “language”, “behavior”, and “state of affairs”.

1.0 We begin with the notion of “thoughts”. One of the interesting features of thoughts is that we often experience them as coming *to* us rather than as coming from us. Equally interesting, our experience of thoughts is that “they come from nowhere.” That is, one moment the thought is not there, and the next moment there it is, fully formed.

To be sure, it isn’t just thoughts. Decisions, judgments, ideas, dreams, behavior, consciousness, conclusions, and so on all have the “come from nowhere” feature. Essentially, our entire mental life, it would seem, “comes from nowhere.” In the present discussion the focus will be on thoughts.

2.0 Because “thought”, “think”, and various cognates are used in connection with a variety of phenomena, let us at least distinguish between thoughts as standing conditions and thoughts which are occurrent episodes:

- a. I think that P. For example, I think that the cat is on the mat, that $E = mc^2$, or that my French grammar could be improved, and so on. In such cases, I take it that P is the case, and this is a standing condition codified by

- the Person Characteristic of “Knowledge” (which includes beliefs, convictions, opinions, etc.).
- b. I have the thought that Q. That is, the thought that Q “crosses my mind”. In this case, I don’t, by virtue of having that thought, in fact take it that Q is the case. My having that thought is an occurrent episode, i.e., it happens at a certain time, and place, and then I don’t have it. It is not a standing condition.
 - c. There are no necessary relationships between thoughts that are standing conditions and thoughts that are occurrent episodes. For example, I can think that P is the case without ever having had the thought that P cross my mind. And I can have the thought that P cross my mind without taking it, then or later, that P is the case. To be sure, there is a familiar paradigm in which I discover that P, have the thought that P cross my mind, and thereafter take it that P is the case.

In the present discussion I shall be concerned with thoughts that cross my mind on a particular occasion and not with thoughts that are beliefs, convictions, opinions, etc.

3.0 It is the thoughts that cross my mind, not those that are simply beliefs, that “come from nowhere”. However, the idea that thoughts might really come from nowhere is evidently unsatisfactory, because we commonly do ask, and try to answer the question, “Where do thoughts come from?” Our answers refer to God, the Unconscious, my authentic self, my brain, and so on.

The dissatisfaction with the idea that thoughts simply do come from nowhere seems to reflect the classic intuition that “From nothing, nothing comes.” One version of this intuition, formulated in positive terms, is the Onstage-Backstage model. For example, this is what is suggested by the phrasing above, i.e., “... and the next moment it is there, *fully formed*.” In this model the thought is a complex construction because it is clearly the product of a syntactic system. Because it is a complex construction, there must have been a complex *process* of construction. Because we don’t observe any

such process, it must take place somewhere out of sight. This process takes place Backstage, and after the construction is complete, and the thought is “fully formed”, it moves, or is moved, Onstage, where it can be viewed by an audience of one. The different explanations of where thoughts come from can be recognized as different theories of what constitutes Backstage. Experience, of course, is Onstage.

Now, although it is natural to raise the question of where do my thoughts come from, there is also something seriously wrong with doing that.

Lewis Carroll: “Nowhere must be a pretty busy place because all thoughts come from there.”

If we take seriously the idea that my thoughts come from somewhere else, two major questions arise immediately, and both are highly problematical. And there are other embarrassing questions as well.

The first question, as we have seen, is “What are the candidates for being the place or the source that my thoughts come from?” The list of candidates, as we have seen, is not impressive, and it is difficult to take any of them seriously, even though their transcendental character makes it impossible to say flatly, “It ain’t so!”

The second question is even worse, namely, “How did it get from there to here (and where is “here”)?” What is the pathway, the traversal of which gets a thought from that transcendental source to my consciousness? Now we are into real absurdity since there are *no* candidates for such a pathway, except, perhaps, again, transcendental ones of completely unknown character.

And one might ask, “How do I know the right thought made that transcendental journey?” And if it wasn’t, was it nevertheless my thought, since it reached *my* consciousness?

4.0 There is also a counter argument to the supposition that my thoughts come to me from somewhere else. The argument is this: No matter where a thought comes from, transcendental or otherwise, if it doesn’t come from me, then it isn’t *my* thought.

In such a case, I would be merely a vehicle for the transmission of the thought, not its source, like the CD is the vehicle for the transmission of the song or the message but is not the author of the song or the message. But the question was about *my* thoughts. It's my thoughts which seem to come from nowhere.

The simple conclusion is that my thoughts don't and can't come from somewhere else. If I'm going to have thoughts at all, they have to "come from nowhere." However puzzling it might be substantively, coming from nowhere is merely a formal mark of the fact that *my* thoughts *originate* with *me*.

(I take this argument to be decisive; I know of no adequate counter to it.)

5.0 One might respond by saying, "Well, yes, but you've been shooting a fly with a cannon. Asking, "Where do my thoughts come from?" is just an innocent metaphor. It's a way of asking, "What accounts for why we have the particular thoughts we do have?"

Now, it's true that if I say something and someone asks in that special tone of voice, "Where did *that* come from?", it's pretty clear that they are asking for an explanation for how come I said that. So the suggestion can't be rejected out of hand. But it can be rejected quickly.

First, if the question is, "Why do we have the particular thoughts that we do?" the answer is that we have a perfectly good, though informal, system for answering the question.

- a. The reason I thought, "I have to go to the store" is that I was getting hungry and needed potatoes to make dinner with.
- b. The reason he thought, "I'll invest in the Swiss Francs" is that the opportunity arose and he regarded it as a sure thing.
- c. The reason she thought, "I've got to get out of this job" is that the work she was assigned just wasn't challenging enough.
- d. The reason she thought, "This is a good day" is that nothing but good things had happened that day and that was unusual.
- e. And so on.

Over most of the range of human activity and interest such explanations do not leave us with something missing that is of a very different sort and is crucial to our understanding. The thoughts I have are non-extraneously related to the behaviors and activities that I do or might engage in or those that I can't engage in but would like to, etc.

To be sure, the more we push for “complete” or “precise” or “predictive” (etc.) explanation, the more we face the same problem we face in predicting the weather with micro-accuracy. The process is so fraught with historical particularity that we never have all the relevant facts, and so, for most such questions the answer is “We'll never know.” And yet there is no mystery there.

Under these conditions, you have to wonder why anyone would think it was advantageous to bring transcendental sources like the Unconscious, the Brain, God, etc. into the picture if all they had in mind was explaining why we have the thoughts we do.

Second, any explanation of why I have the thoughts I have, is beside the point. Whatever that explanation might be, it doesn't address the issue at hand, which is “one moment it isn't there and the next moment it is there.” This is the feature of thought that was puzzling enough to initiate our inquiry, and this is the issue we are pursuing.

6.0 Returning to this issue, we recall that there were two items of interest about thoughts. The first is that my thoughts often seem to come *to* me rather than from me. The second is that thoughts “come from nowhere”.

There is at least one other feature that is of interest. Usually, I experience my thoughts as a voice saying those thoughts. Moreover, the voice is almost always my voice. Thus, there is something experiential that ties my thoughts empirically to me rather than to some transcendental source. Given the other characteristic, experientially, I am both the source and the recipient of my thoughts.

In one sense, this is familiar ground, since we are all familiar with the notion of a reflexive relation, and any reflexive relation will generate this structure.

(Consider a two-place relation R , where ${}_p R_m$. A two-place relation is a reflexive relation if ${}_p R_p$ is a possibility. For example, $R = \text{“shaves”}$ fits this specification, since both “ p shaves m ” and “ p shaves p ” are possibilities. On the other hand, “ p is taller than m ” is a two-place relation but it is not reflexive, since “ p is taller than p ” is not a possibility. The question of reflexivity is still present where R is part of a more complex relation (i.e., an n -place relation, $n > 2$). For example, “shaves” is really a 3-place relation, i.e. “ p shaves m with y ” where y , clearly, is a razor.)

Now, consider an intermediate case, namely, “ p tells m that Q is the case.” Is this reflexive? Well, there doesn’t seem to be any contradiction in accepting “ p tells p that Q is the case.” But it does sound nonsensical or absurd. We know that it is not, however.

All this suggests that we are not just dealing with the logic of reflexive relations here, but rather with something more or something other, something of a substantive sort.

Pursuing this notion, we may ask, “Where in connection with persons do we find a phenomenon where the person is both the source and the recipient of something like a message?” What we find is that the only obvious candidate is the Actor-Observer-Critic schema. Let us review these notions briefly.

7.0 To begin with, Actor, Observer, and Critic are not homunculi. They are statuses. I generally characterize them as jobs. Mastery of these jobs is essential to being a person. The corresponding job descriptions are as follows.

- a. *Actor*. As an Actor, I act. I do my thing. I follow my inclinations, express myself, pursue my projects, do what comes naturally. I am spontaneous, creative, expressive.
- b. *Observer-Describer*. As an Observer-Describer I merely take note of how the behavior is going.
- c. *Critic*. As a Critic, I evaluate how things are going, based on the Observer’s descriptions. If things are not going well, I evaluate the situation in terms of how it has gone wrong and

what might be done to improve matters. We usually call this “diagnosis” and “prescription”.

Actor-Observer-Critic functioning forms a natural feedback loop, with the Critic’s diagnosis and, especially, prescription being the feedback to the Actor. The feedback loop structure accounts for the ability of persons to regulate their own behavior, which is one of the essential characteristics of being a person.

(Parenthetically, the feedback loop structure distinguishes Actor-Observer-Critic cleanly and fundamentally from Id-Ego-Superego, Parent-Adult-Child, and any of the other triads which populate clinically oriented psychological theories and self-help books. If we try to arrange these other trios into a feedback loop, we fail because the members of the trio don’t have the right characteristics or the right relationships with the other members.)

Let us elaborate the notion of Actor-Observer-Critic functioning with the following Paradigm Case Formulation.

I. Paradigm Case

As an Actor I engage in a course of behavior. As an Observer-Describer I note how the course of the behavior is going. As a Critic, I evaluate how the behavior is going and (a) if it is going well enough I leave well enough alone, but (b) if it is not going well enough I generate a “diagnosis” and “prescription” for the Actor.

II. Transformations

TI. Change the Actor’s course of behavior to an imagined behavioral enterprise.

Thus, as an Actor, I imagine initiating a course of behavior. As an Observer, I imagine how that could be expected to go. As a Critic I evaluate the latter and generate feedback having the general form “OK to do, because” or “Not OK to do because”, or “OK to do, but...”

T2. Extend the scope of A-O-C beyond the Actor's behavior.

As an Actor, I extend the notion of my own behavior to something that meshes with other people's behavior and with the world in various ways, and vice versa; I think in terms of "our" and "their" behavior. As an Observer, I note everything—how things are going, what goes on, how things work, how things usually go, etc. Noting everything includes noting normative, statistical, law-like, and theoretical generalizations as well as situations that have nothing particular to do with me, and historical facts, that have no special bearing on my behavior or connection to my behavior. As a Critic I move beyond evaluating how my behavior is going, and develop my potential for evaluating anything and everything in whatever respect and in light of whatever standard.

T3. Change A-O-C functioning from sequential to simultaneous.

Actor-Observer-Critic paradigmatically form the structure of a negative feedback loop, and that calls for an A-O-C *sequence*. That sequence is preserved for any given behavior that may be at issue. However, as soon as the consequences of T1 and T2 begin to accumulate, each of the A-O-C jobs becomes a full time job and in general, at any given time, Actor, Observer and Critic activities are being carried out.

Unless otherwise noted, Actor-Observer-Critic "functioning" or "activities" will refer to the Paradigm Case above augmented by the possibilities given by Transformations T1, T2 and T3.

8.0 There are two further aspects of A-O-C functioning which are of interest in connection with the questions we have about thoughts. The first is brought out by the question, "How does the Critic communicate a diagnosis and prescription to the Actor?" More generally, how does communication take place among the three? The second has to do with an asymmetry between Actor, on the one hand, and both Observer-Describer and Critic on the other hand.

With respect to communication among Critic, Actor, and Observer, we have two choices. Either there is no channel of

communication here, and none is needed, or else there is one and it is the Person.

Recall that Actor, Observer, and Critic are jobs, not homunculi, and it is the Person who performs those jobs. The person knows what the person knows. What the person knows as a Critic he also knows as an Actor and as an Observer. Therefore, there is no problem of how, or via what channel the Critic communicates a diagnosis and prescription to the Actor.

The asymmetry between Actor, on the one hand, and Observer and Critic on the other hand is this: As an Actor I know ahead of time, or “before the fact”, what my behavior is, and I have to know that in order to enact the behavior on purpose. As an Observer or Critic I have only “after the fact” access to my behavior. As an Observer or a Critic I have essentially the same access to my behavior that other people have—I have to wait for it to happen before I can observe it and evaluate it. (This holds equally, the necessary changes having been made, for the case of imagined behaviors.)

The rationale for the asymmetry is obvious and well known—I have to know beforehand what behavior it is in order to then do it on purpose. In the present context we shall also be interested in how this asymmetry works—in how I can routinely know ahead of time what behavior I am going to enact. It is not a simple matter.

In this connection we often speak of having an author’s knowledge of my behavior, in contrast to an Observer’s knowledge. It seems obvious that in order to engage in a behavior on purpose, I have to distinguish that behavior ahead of time in order to do *it* rather than something else. Here, we ask, “What is involved in having an author’s knowledge of my behavior?”

Conceiving my action, P ahead of time, is not to be understood on the model of a thought that crosses my mind, i.e., “P”. That is not our experience of the matter. I don’t routinely think to myself the names or descriptions of the actions I am about to engage in or that I am engaged in, nor do I conjure up images or other such representations of them (nor would it be sufficient if I did).

9.0 In what way, then, do I “know what I do before I do it”? Plausible answers of any kind are not easy to come by. One approach is to begin with the following: I have the general and specific power, or ability, to select a course of behavior which is multilevel; i.e., has a significance/implementation structure, and which fits an identifying description, D, without that description having figured explicitly in the creation of the behavior. Because of this, I can say after the fact what it was I *did* without having done it on the basis of that description. (Of course, in the other case, where I tell you I’m going to do P and then do P, there’s no problem.)

To be sure, this is only a beginning, and some account of how this ability works is needed. For example, given that a description of the behavior is available after the fact, we need an account of why the description of the behavior is dispensable in the creation of the behavior. After all, if language is essential to the making of distinctions and if behavior involves the making of distinctions, why isn’t there a verbal component to all behavior, or at least, to all Deliberate Action?

However, the relation of language to the making of distinctions is not this one, and it is not a simple one, and it is not just one relation.

For one thing, language is not at all necessary for the making of distinctions. All “higher organisms” and perhaps all organisms make distinctions and act on them, yet only one species is known to have a language. A rat does not need to have a language in order to distinguish the red triangle from the blue square and jump to the former. The cat does not need to have a language in order to distinguish the sound of thunder from the sound of wind and rain or to distinguish light from sound, and so on.

What a language is essential for is to distinguish *which* distinctions these are. Without language, I can distinguish the red triangle from the blue square, all right, but I can’t know (distinguish) that *what* it is I’m distinguishing is the red triangle and the blue square. I also can’t know that what I’m doing is *distinguishing* something from something else. And if I can’t distinguish doing one thing from doing another, then I can’t do either one of them on

purpose, nor can I think about it. I can distinguish the red triangle from the blue square and jump to the red triangle, but I can do that only in the presence of a red triangle or a blue square (i.e., I can distinguish them only if they are there to be distinguished).

Where then does language fit in here?

Let us advert to a common view we have of normal human behavior: Ordinarily, our behavior is merely a case of acting spontaneously in light of our circumstances (without thinking or talking about it) in ways that reflect our learning histories and our person characteristics. (This is the PC-C model for understanding human behavior.) The category of Person Characteristics includes the subcategory of Knowledge, defined as “the set of facts (states of affairs) that the person has the ability to act on.”

Note, however, that “our circumstances” refers to something that goes beyond what is here-now present to our senses. “Our circumstances” includes a structured world, primarily a social world, of objects, processes, events, and states of affairs, and what is here-now present to our senses had better well fit within that or we will be disoriented and unable to act effectively.

Now, once I have learned about red and blue and triangles vs. squares and about sight and sound and danger and safety, and so on, I will almost always perceive the world and think about the world in those terms. I will *see* the magazine cover as red (and not blue, etc.); I will experience myself as seeing the magazine (not hearing it, smelling it, etc.); I will see the lion as something dangerous (and not harmless, etc.).

It is because perception and understanding tend strongly to follow the lines laid out by our verbal distinctions and formulations that (a) I can spontaneously see the world in terms of distinctions that I *could* specify verbally, and (b) I can act on those distinctions in ways that I can also distinguish and describe without (c) going through a *process* of describing what I am distinguishing, or what I am doing, or what I am about to do.

(Something of this sort is a practical necessity, since many implementation behaviors, especially at the most concrete levels

occur more quickly than we could verbalize thoughts or descriptions of them. Thinking or talking about every behavior in advance is a luxury we couldn't afford.)

Here we have a certain kind of answer to the question of how it is that I can know what I do without thinking about it (without having had the thought of it cross my mind) or describing it.

However, the answer we have just arrived at still does not appear to do the entire job. What is missing is an account of how I can know what I do *ahead of time*, which is what Deliberate Action requires.

In this regard, let us consider a type of model, or paradigm, which I call "Reading Off the Features". (The philosopher holds up a tomato and says, "Now, when I say it's red, am I theorizing? Am I hypothesizing? Am I imposing something on what I see? Or am I just reading off the features of what is actually there?") The context here, however, is world construction and reconstruction, not merely knowledge.

In the "Reading Off the Features" paradigm, I acquire grounds for changing (correcting, adding to, elaborating, completing some part of, etc.) my world, *and I simply do that*. Paradigmatically, that happens when a trusted source (father, mother, teacher, authority figure) says that a certain state of affairs is the case. For example, the trusted source says, "Wolves are dangerous." Since it comes from a trusted source, I do not question that, or test it, or wait for conclusive evidence or anything like that. Rather, it is simply the case that thereafter I take it that wolves are dangerous. For me, that is simply part of how things are, and I will act accordingly. For example, if someone asks me, "Are wolves dangerous?" I will answer "Yes" without hesitation and without having to remember or reconstruct how I found that out. And if someone asks me about wolves, it will not be far down the line that I say, "Wolves are dangerous."

As with other PC's, once I have the PC of "knowledge that wolves are dangerous" I will continue to have that PC until and unless something happens whereby that changes.

As noted above, my PC category of “knowledge” is defined as “the set of facts (states of affairs) or concepts that I have the ability to act on.” Up to now we have pretty much taken this definition at face value, and we think of it as a specific set of facts, each of which I acquired somewhere somehow, and I have the ability to act on *those* facts.

As a PC definition it works well. However, it should be clear by now that what I have to act on is not simply a discrete set of facts, but rather a structure of facts, i.e., my real world, which encompasses logical, causal, empirical, explanatory, historical, human, and spiritual facts (among others). It also offers a multitude of implied facts, intuited facts, inferred facts, suspected facts, forgotten and half-forgotten facts, temporarily unavailable facts, relational facts, relativistic and absolute facts, summary facts, actual facts and possible facts, past, present and future facts, and so on. All of these are involved in my version of “how things are” or “my circumstances” or “the world”.

Now, although “reading off the features of what is actually there” in my circumstances is presumably not a simple matter like sticking in my thumb and pulling out a plum, it sort of works that way. It works that way in the sense that all of these facts in my world and all of that structure are *immediately* available to act on. I simply “read off the features” of my world. In its own way, this is extraordinary, and it tells us something about the logic of person and world and world construction. What it tells us is a far cry from the clichés of “Here we stand on a nondescript planet in the middle of billions and billions of galaxies.”

In emphasizing the radical difference between the notion of Deliberate Action and the usual run of psychological concepts of behavior, I have had occasion to comment that the logical scope of a single Deliberate Action is identical to the logical scope of the entire universe. Briefly, this is because, formally, the K (Know) parameter of a Deliberate Action could have as its value a description of the past, present, and future history of the universe. (We get a weak

version of this notion when we speak of “acting under the aspect of eternity.”)

One could say that each of my behaviors reflects my entire world and all of the facts it contains—it’s just that some of them are more relevant than others. What we commonly say is that the behaviors that I in fact engage in each involves acting on only a small number of the facts that I have immediately available.

10.0 This raises the question of how I select which facts to act on, on a given occasion? That is a natural question, but it calls for a circumspect approach which avoids dealing with the selection as being a prior behavior. (Earlier infinite regress problems threaten to reappear here.) In this connection, let us distinguish between behaviors that are evoked by circumstances and behaviors that are generated by me, since the answer will be somewhat different in the two cases.

Case I

Consider behaviors that are evoked by circumstances. The lion walks in the room and I run out the door. Why do I act on *this* circumstance (this state of affairs) and not some other? After all, this is no part of any plan I may have had.

The answer is given by a maxim: “A person values some states of affairs over others and acts accordingly.”

I value being safe over being in danger and I act accordingly. It is just such values that come into play when behavior is evoked by circumstances. I am sensitive to those facts which threaten or further one of my values. I am routinely on the lookout for such facts. (I am constantly appraising my circumstances.) I routinely conceptualize the world in these terms.

In short, in this kind of case the facts I act on are relevant to a high priority value that I have and to the behaviors that implement such values.

Case II

However, behaviors evoked by circumstances are the exception; most originate with me.

Recall that to engage in a Deliberate Action is to participate in a social practice (and further, generally, in an organized set of social practices (These are designated as “Institutions”).).

Thus, at the time when, formally speaking, I select my behavior, call it B1, in advance and know what it is, I am then engaged in enacting a social pattern of behavior (a “social practice”), call it SP25, which has a place for that behavior, B1. The latter is one of the possible implementations or partial implementations of SP25 and, in the circumstances, since it is the one I select, either it is the only one I can discern or it has a decisive advantage over the other possibilities.

Knowing ahead of time what I do is not a matter of *predicting* my own behavior. Thus, although I generally can’t tell you five minutes ahead of time what particular behavior I will be engaging in, at about the time it comes time to do it, I have at hand all the facts I need to have in order to know what that behavior will be. And I could tell you about it then, though I almost never do. (That would impede the flow of the action, most likely.)

To take a simple example, I could not tell you at the beginning of a game of chess (the social practice) what my fifth move would be. But anytime from, say, move three on I could tell you what move I expect to make on Move 5, and certainly, by the time it comes time to make the move I can tell you what it will be (and I haven’t verbalized or thought anything, either).

There are two angles here, i.e., “How do I know?” and “How can I be sure?” We have already answered the first. In general, knowing is the mark of having decided, and being able to say is the mark of knowing. Once I decide, then I know (and I don’t in general, go through any process of deciding, including any verbal process). For the second, we shall need reference to the heuristic image, “The Picture of Winston Churchill.”

The Picture of Winston Churchill

Imagine that I show you a glossy 8x10 photograph and ask you “Who is this a picture of?” You take one look at the photograph and laugh. You say, “It’s a picture of Winston Churchill—no mistaking that face!” Then I face you with a prosecutorial look and say, “Now, wait a minute. How do you know that this is a picture of Winston Churchill and not of someone else who happens to look exactly like this photo?” You hem and haw but eventually you have to admit that in fact it may not be a picture of Winston Churchill.

Then I give you a piece of paper and some colored pencils and say, “How about drawing me a picture of Winston Churchill?” After about five minutes you lay down the pencils and say, “OK, I’m done. There it is.” I look at the drawing, put on my prosecutorial face and say, “Now wait a minute. How do you know this is a picture of Winston Churchill and not of someone else who looks exactly like what you’ve drawn?” We go round and round on this, but eventually you get it right. You say, “I don’t care who it looks like. I know for absolute sure that this is a picture of Winston Churchill because that’s what I produced it as, and that *makes* it a picture of Winston Churchill.” And you’re right.

I have often commented in connection with this image that the same holds for our behaviors. I know that my behavior is behavior X because that’s what I produced it *as*.

In the present context it works out neatly to say not merely that I know after the fact that my behavior was B1 because that’s what I produced it as, but also that I knew before the fact that my behavior was going to be B1. Because I knew then that that’s what I was going to produce it as; I knew then that that’s what I was going to produce

it as because that's what was (already) called for by the social practice that I was already engaged in doing.

Thus, at last, we have a direct answer to the question of how I can routinely distinguish ahead of time the behavior I am going to engage in. The answer to how I know *ahead of time* is provided by the hierarchical and sequential structure of social practices and larger patterns (institutions) composed of social practices. Since every Deliberate Action is specified as one of the stages or optional stages in one or more social practice, as soon as I begin to participate in any such social practice, certain behaviors, including B1, are distinguished from the very beginning as being called for at a certain point. Thus, when I engage in that practice, I have distinguished the behavior ahead of time. As the time for doing it approaches, I have lost whatever grounds I might have had for doubting, or considering alternatives, and when the time to do it arrives, I can be sure ahead of time what it is I'm going to do, because I can be sure ahead of time what I'm going to produce that behavior *as*, namely as the behavior called for by the practice. (In the case of behaviors evoked by circumstances, the structure of social practices that is evoked is likely to be different, but that difference will not be generally significant.)

To summarize, the explanation for why I can know *at all*, what it is I do, and without thinking about it, is provided ultimately by the model that says that perception and knowledge follow the lines laid down by social and linguistic practice, and it is provided proximately by the "Reading Off the Features" model. The social practice model then explains how I can know ahead of time.

Recall that questions about A-O-C entered the present picture when we noted that Actor-Observer-Critic functioning is one of the few human phenomena in which I am both the generator and the recipient of a message, or something like a message. This was suggestive because the thoughts that cross my mind have this feature—they seem to come *to* me and also, since they come in my voice, they also seem to come from me. It appears that the functional separation of Actor, Observer and Critic and Person is strong enough

to support this duality. (For example, as is well known, I generally *hear from* my Critic; I seldom *talk to* that Critic.)

The suggestion here is that thoughts are generated by A-O-C activities. But we shall have to look and see what additional support for this suggestion may be forthcoming.

Why would there be an interesting connection between occurrent thoughts and A-O-C activities? In a word—the world, that total structure of states of affairs that codifies my behavior potential. My thoughts are about the world and/or my position with respect to some states of affairs or possible states of affairs. And the world that my thoughts are about is the world that I construct, maintain, and reconstruct through my behavior, which depends on A-O-C activities.

Thus, we need to bring world maintenance and world reconstruction into the picture in a systematic way. (In doing so we will be elaborating on the work of Tee Roberts, who introduced them to the Descriptive Psychology community as systematic concepts.)

Outside of Descriptive Psychology a reference to world construction, world maintenance, and world reconstruction is not unlikely to meet with a bright smile and a disclaimer: “You must be speaking metaphorically. *Surely*, you don’t mean, *literally*, world construction, maintenance, and reconstruction.” The appropriate answer in the present case is, “No, it’s not a metaphor, and, yes, I mean *literally* world construction, maintenance, and reconstruction.” Questions then tend to be along the lines of how one could do that, why one would do that, what guarantees does one have that it has been done right, and so on.

When it comes to world reconstruction, we can sometimes use the poets as a source of ideas. For example, we have our old friend Omar Khayyam, who says:

*“Ah, love, could you and I with Him conspire
To change this sorry scheme of things entire
Would we not shatter it to bits, and then
Remold it nearer to our hearts’ desire?”*

To those who look askance when we say, “No, I mean, *literally*...” I suspect it must seem that we are referring to some Godly exercise of power such as this. What Khayyam describes so vividly is what one might call a brute force approach to the matter. And it is not open to us. We can’t “shatter it to bits, and then remold it nearer to our hearts’ desire.” Unless we can, of course. (Perhaps putting a freeway through an urban area is as close as we come.)

How, then, and what, then? What mechanism, what procedure, what agency is available for reconstructing my world?

There is a certain kind of alternative to the “shatter it to bits” approach. Stanley Cavell, in explaining the difference between Wittgenstein’s philosophy and traditional philosophy, said roughly the following. “For Aristotle, to speak the truth is to say of what is *that* it is. In this new way of talking, to speak the truth is to say of what is *what* it is.”

In creating worlds, and in reconstructing worlds, we don’t do it by creating stuff and moving it around. Rather, what we create is its being what it is.

Recall that whereas my knowledge is the set of facts that I have the ability to act on, my world is the structure of facts that I have the ability to act on. It is my world that codifies my possibilities and non-possibilities for behavior, and that is the primary value of constructing a world to begin with. Typically, I engage in reconstructive efforts when there is something significantly problematic about my world. Against this background, what can we say about reconstructing my world?

- a. If I simply try to change it in any kind of arbitrary or brute force way, I find I have no basis. My world as it is already represents my last word on how things are and on what is possible or impossible for me. I can arbitrarily suppose that this or that is different, and I can to some extent arbitrarily make things different, and so that is not a hopeless undertaking, but neither, in general, does it seem to be very productive of change.

- b. If I start with the world as it is and try to generate new behavioral possibilities, I may well succeed in generating new behavioral possibilities. But even that is relatively unlikely to change my world, because that is what I started from and the new behaviors are likely to be compatible with it.
- c. If I start with behaviors which I did not already think of as possible for me, and from that start, construct a world which supports/enables those behaviors (a world in which those behaviors are possible), then if I succeed, that does seem to have a good possibility of changing my world. (By the way, this paradigm is a model for many kinds of problem solving, e.g., the kind where we “work backward from a solution” or the kind where we do a task analysis.)

If I proceed in the third of these ways and succeed, that implies that either my former world was an incomplete or an inexact codification of my behavior potential, or else that my behavior potential has changed or both. After all, there is never a guarantee of completeness or correctness. In fact, the presumption is to the contrary. (So that world reconstruction is a more or less routine activity along with world maintenance.)

In effect, I do not routinely reconstruct my world by doing something which makes it different from what it was before. Rather, I do it by discovering that it already was different from what I had taken it to be. (Recall that in the Degradation Ceremony, “What he is now is what, ‘after all’, he was all along.”)

How does this approach to world reconstruction compare with Roberts’ (1985) analysis of dreaming as a vehicle for world reconstruction?

- a. Roberts’ notion of dreaming begins with the multilevel structure of behavior, i.e., the notion that every case of Deliberate Action is a case of doing X by doing Y, with “doing X” being the significance of doing Y and “doing Y” being the implementation of doing X.

- b. In this arrangement, with at least two behaviors involved (there may be intermediate behaviors) the top level behavior, B1, is what I am really up to and reflects primarily my being in the world. The bottom level behavior, B2, is what I visibly do, and that represents the exploitation of the specifics of my circumstances in implementing what I am up to. (Doing B1 is the significance of doing B2; doing B2 is the implementation of doing B1.) My circumstances (i.e., my world) thereby embody and codify the reality constraints, which determine which concrete behaviors, if any, are actually available that will effectively implement what I am up to.
- c. Dreams are notable for the absence of this last condition. Because I don't in fact have to engage in overt behavior when I dream, the usual reality constraints on how I can implement what I am up to are not present. And it is precisely this freedom from reality constraints which allows me to formulate solutions which I might otherwise not have access to.
- d. Correspondingly, the absence of reality constraints results in the need to interpret dreams in order to make explicit what solutions they represent. Since the concrete dream behaviors and, especially, the circumstances, do not have to be realistic, they can be almost anything. The way to recover the pragmatic content of the dream (the significant level) is to interpret the dream. This is done by following two principles:
 - 1) Drop the details and see what pattern remains.
 - 2) Don't make anything up. (Stick to what is *in* the dream.)
- e. The final step in dream analysis is to reintroduce the reality constraints of the dreamer's real life circumstances and apply the "solution" there. If it is successful, the dream solution remains a possible solution in real life, and if the dreamer acts on it successfully, the conditions for a successful world reconstruction have been met.

Now, if we juxtapose this formulation of dreaming to the preceding examination of world reconstruction we find that they mesh quite well. Specifically, the dream formulation appears to be a special case of the third approach, i.e., “If I start with behaviors which I did not already think of as possible for me, and construct a world which enables or supports those behaviors, then if I succeed, those do have a good possibility of changing my world.”

The reference to dreams also supplies us with another link between world reconstruction and A-O-C activities. Remembered dreams have been characterized as falling almost 100% into two categories, i.e., problem formulation dreams and problem solution dreams.

The solution to a problem generally demands a certain level of clarity concerning what the problem is. And if that level of clarity has not been reached in real life, then the formulation of what the problem is, is itself a problem that can be addressed in dreaming or in realistic problem solving or anything in between.

But although problem formulation dreams and problem solution dreams can both be formally characterized as “problem solution”, there are clear differences between the two genres. In particular, a problem formulation dream clearly involves Critic and Observer functions primarily (a problem formulation is a Critic “diagnosis”) whereas a problem solution dream clearly belongs to the Actor mode. (It is the latter that has been labeled as “wish fulfillment”)

Does all this answer the question concerning what specific mechanism, process or agency, etc. is available for routine world maintenance and reconstruction? Not yet as well as one would like.

Let us continue by introducing the notion of behavior as drama. And let us proceed by noting that (a) the description of a Deliberate Action is much closer to the description of a drama than it is to the description of a movement, and (b) the description of the social practice of which the Deliberate Action is a part *is* the description of a drama. The feature that is of specific interest here is that the specification of both the Deliberate Action (via the parametric analysis) and of the drama (via a process description) is completely

self-contained. It requires no reference to anything outside because it includes a specification of everything that is involved in the drama. One might say that the drama constitutes a world of its own and that, formally, *it has no circumstances*.

Returning now to the question of how world reconstruction is accomplished, the first thing to be avoided is to think of “changing” the world on the model of a child with a set of building blocks (facts or objects) rearranging them closer to his heart’s desire.

11.0 Instead, we have the familiar notion of status assignment and, in the context of the theater, the corresponding special case of “casting”. In the theater, “casting” consists of assigning each of a set of historical individuals, namely the actors, to play one of the parts (one of the characters) that the play calls for. The extension of the notion of “casting” to the non-human parts played by the various props is straightforward.

12.0 Similarly, if I want to engage in a social practice, I have to assign actual individuals to play each of the parts (persons and non-persons) called for by the practice. Of course, I hardly ever go through any *procedure* of assigning those statuses explicitly. I just act accordingly—I just treat them accordingly and expect the same from them (and I judge them accordingly).

13.0 Notice that this fits our prescription of “If I start with behaviors which I did not already think of as possible for me and construct a world which enables those behaviors, then if I succeed, that seems to have a good possibility of changing my world.” If I make my status assignments and act on them successfully, i.e., I do in fact carry out that social practice, who is to say that my status assignments were wrong *and the world isn’t that way*. (Darwin: “Don’t argue with success.”)

Notice too, that what makes it easy is that I don’t have to go through any separate *procedure* of “constructing a world which enables those behaviors.” That world is built in to the description of the social practices I am engaging in and through them it is built in to the description of the individual Deliberate Actions of which the

social practices are the Significance. Everything that the world needs to contain in order for the enactment to be both successful and a part of the real world is contained in the concept of the social practice. If the enactment was successful, there really were the “characters”, both human and non-human, called for by the social practice.

Here, again, the case of dreaming is helpful, this time in bringing out the potentially arbitrary character of casting, or status assigning. In dreams, to a large extent, the casting *is* arbitrary. (Recall that we can get by with that precisely because we don’t, in dreaming, have to carry off the action in the real world *with its corresponding reality constraints*.) It is partly because of this arbitrariness that we have to interpret the dream by dropping the arbitrary details and otherwise take it at face value by not making things up. It is because the drama and the characters, human and otherwise, are logically distinct from the individuals who play those characters on a given occasion, that we can indeed interpret the dream by separating the drama and the characters from the arbitrariness of the individuals who play those characters in the dream. We do this by means of Significance Descriptions (“Drop the details...”).

Except in some special cases, we do not, to be sure, wind up with neat before-and-after descriptions of the world. (“It used to be *that* way and now it’s *this* way;” or “I used to think it was *that* way and now I see that it’s *this* way.”)

But why should we? Language is essential in the domain of behavior, but it is not primary. My world is not held in place because I have a complete or rigorous description of it, but rather because I know my way around in it. If the primary point of my having a world is that it codifies my possibilities and non-possibilities of behavior, and if the most fundamental way of knowing the world is knowing what it calls for by way of behavior (note that giving a description will be merely a special case of that), then characterizing a change in my world by reference to a change in what it is possible for me to do seems right to the point and not any kind of second best.

Note that, particularly in light of the Paradigm Case Formulation of A-O-C, I don’t have to actually engage in the new behavior. As

long as I can “see my way clear” I will take it that I *could* engage in that behavior and that is sufficient to mark a change in my world. That’s what happens in successful problem solving.

14.0 If thoughts are, in effect, verbalized A-O-C activities, how does it happen that only certain of these activities are verbalized? What accounts for which are and which aren’t? And how does it happen that I have any thoughts at all?

If we take an empirical approach and examine a sample of actual thoughts (our own or a collection of reported thoughts) we can detect some reasonably clear tendencies concerning which A-O-C activities appear as thoughts.

- a. The A-O-C activities which we experience are those that are closest to being overt behaviors. They represent possible behaviors that we might well have engaged in overtly except that something else had priority.
- b. The A-O-C activities we experience are those that have high priority—they correspond to *important* judgments, observations, actions, etc.
- c. The A-O-C activities we experience as thoughts are those that are closely related to the overt behavior we do engage in. (Cf. “Is it time?”)
- d. Conversely, we also experience as thoughts A-O-C activities, which are so unrelated to the overt behaviors being engaged in that the two do not interfere with each other. This case often requires that what we are doing overtly is especially simple and/or non-problematic so that “our thoughts are free to wander.”

Given some simple behavioral economics of the situation these results are not surprising although there doesn’t seem to be a neat and simple way of parsing it.

We begin with overt Deliberate Action. A Deliberate Action may be an Actor activity, an Observer activity, or a Critic activity. (Considered as behaviors, there is a simple set of logical relations

among them, i.e., Critic is a special case of Observer-Describer and Observer-Describer is a special case of Actor.)

Thus, as soon as we introduce the notion of simultaneously functioning in all three ways, we raise the issue of interference. We can't do all three overtly and simultaneously because they would interfere with each other. As soon as we introduce the notion of overt and covert functioning we provide a way out. Absence of interference may be presumed at a given time if only one of the three appears as overt behavior and the other two appear as covert activities, including those covert activities represented by thoughts.

Verbal behavior provides an intermediate case here. It is overt behavior but it interferes minimally with ongoing non-linguistic behavior.

Is there a question about covert Actor activities? That probably depends on how much we want to insist that there is. If I say "When she said that, I thought of going to the store right then", there doesn't seem to be much difficulty.

Thus, we might say that thoughts that are related to the overt behavior patterns being implemented occur because they correspond to Actor, Observer, or Critic activities that are involved in that behavior and because, being covert, they do not interfere.

Conversely, we might say that thoughts that are unrelated to the overt behavior patterns being implemented can occur because the corresponding A-O-C activities are unrelated enough not to interfere, and they occur if they are sufficiently important.

I would expect that there are exceptions to these general tendencies, and that if we pursued them, we would eventually be facing the weather prediction problem—no mystery in principle, but in fact we'll never know.

15.0 And how does it happen that I have any thoughts at all? This question is not answered by pointing out patterns in the range of thoughts that do occur. Indeed, it is probably best answered in the context of our primary task of understanding how it is that thoughts come from nowhere.

Surprisingly, perhaps, this answer is one of the cleanest and easiest to generate. Thoughts come from nowhere because having a thought is an event, as formulated in the State of Affairs System, and events come from nowhere. One moment they're not there and the next moment they are there!

TR6. An event is a direct change from one state of affairs to another.

Having a thought is an achievement, as is reaching a conclusion, making a decision, passing a judgment, or raising a question, and achievements have no duration, because they are events. Thus all of these mental phenomena “come from nowhere”.

It's pretty clear what kind of achievement it is to reach a conclusion, make a decision, etc. What kind of achievement is it to have a thought? Here, one might say that when I have a thought I have achieved some kind of position vis-à-vis the world.

I believe that that is essentially correct. However, the fact that I can have a thought, e.g., “They're not coming,” which does not correspond to a belief but rather expresses a hope or a fear, opens the possibility of, and the necessity for, some further complexity.

One can formulate the complexity along one or another of two distinct lines. The first merely calls for a shift from actual to potential. I have achieved an actual position or formulated a potential position vis-à-vis the world. I suspect this is too simple.

In the second approach, we use verbal behavior as a model. It is well known that the pragmatics of verbal behavior defies simple generalizations. But, for example, it is our familiarity with this aspect of verbal behavior that allows us to recognize cases where, when I say, “They're not coming”, I am expressing a fear, not a conviction, or, I am manifesting the hope that they will come. Since, in general, it is because we know how to do certain things with words spoken aloud that later we can do the same things with words “in our heads”, the use of that paradigm here has the appeal of verisimilitude.

Footnotes

1. This is the text of the paper that Dr. Ossorio prepared for the 1998 Society for Descriptive Psychology meeting. Previously, in Vol. 8 of *Advances in Descriptive Psychology*, we published a transcription of the paper as actually presented with questions from the audience and with his omissions and condensation of his argument on the fly, so to speak. This version includes the complete text as he wrote it, and thus from [ms. pages 20 through 33] this wording should replace the more informal version contained in the presentation in Vol. 8 from pages 134 to 143.

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An Indeterminate and Expansive World

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Abstract

The real world is a behavioral world, a totality in which forms of behavior are taken as ultimate, in contrast to worlds in which physical objects, numbers, etc. are taken as ultimate. It is an indeterminate totality, in that we can create new behaviors that change the structure and complexity of everything. The boundary condition for the real world is reality, and the basic form of scientific empiricism is reality-based rather than real-world-based. From a reality-based perspective, acting on phenomena like imaginary numbers and imaginary companions makes sense, and so does acting on scientific theories that later turn out to be imaginary.

In *Six Books on the Revolutions of the Celestial Spheres*, Nicolaus Copernicus (1543/1947) declared his innovative understanding of the real world with these words: “Lastly, the sun will be regarded as occupying the midpoint of the world. The reason for the order in which all these things succeed one another and the harmony of the whole world teaches us their truth, if only—as they say—we would look at the thing with both eyes” (p. 63).

But astronomers of the 16th century who read his work were not especially interested in his sun-centered cosmology. As revealed by a scholarly study of annotations and marginalia in the 601 surviving copies of the first and second editions of *De Revolutionibus* (Gingerich, 2002), they were interested in his methodology for predicting the positions of the planets. Was it

mathematically sound? Was it simpler than Ptolemy's method? Was it more accurate? In short, was it an effective and useful way to go about their business as astronomers? For the most part, astronomers of Copernicus' century focused on the technical details without engaging with his revolutionary, and heretical, view of the world (Gingerich, 2004).

In *“What Actually Happens”*, Peter G. Ossorio (1978) expressed his world-changing understanding of the real world with these words: “The only “world” which does not represent an arbitrary, a priori limitation on possible states of affairs and which, therefore, includes all the other “worlds” and qualifies as simply “the real world” is the one which would be most naturally called “the behavioral world,” or “the human world,” and that is the one that is codified in the Human Model, or Person Concept” (p. 33).

For the most part, members of the Descriptive Psychology community have not been interested in his behavior-centered cosmology. In fact there is general agreement in the Descriptive community that most of us were drawn to the system because it offered powerful and effective ways to go about our business as psychologists, mathematicians, engineers, theologians, and so forth. Like the astronomers of the 16th century, we focused on what was immediately usable in our worlds. We mastered detachable parts of the system (e.g., Judgment Space, Basic Process Unit, Paradigm Case Formulation, Status Dynamics), and utilized them to make significant contributions in our communities.

But if we look with both eyes, we will see that the system as a whole entails a fundamentally different concept of the real world. I hope to give readers an intuitive sense of that concept, as well as an appreciation of the difference that it makes to our behavior potential.

Totalities

The concept of a world is the concept of a totality. Paradigmatically, everything fits together in a totality, and everything is systematically related to everything else. Copernicus'

formulation of the celestial world is an example. In a simple, geometrical diagram in Book One of *De Revolutionibus*, he shows the sun at the center of the totality, and the earth and the planets revolving in circular orbits around the sun. The moon moves in an orbital circle around the earth, and the totality is circumscribed by the orb of the fixed stars. The sun is immobile, and epicycles (circles within circles, not shown in the diagram) help to account for known deviations in the circular orbits.

Descartes' creation of a new totality is a second example. Algebra and geometry were treated as separate domains prior to Descartes, but in *La Géométrie*, he demonstrated their systematic interconnectedness. He showed how integers, rational numbers, and real numbers could be represented geometrically, and how the same equations could be solved both algebraically and geometrically. He thereby created the new field of analytic geometry “and made modern geometry possible” (Grayling, 2005, p. 206).

The world of the heavenly spheres and the world of analytic geometry are totalities formulated by exceptional scientists, men who had the vision and will to put things together in innovative ways. The formulation of totalities is not only accomplished by scientists, however. The same kind of achievement is reflected in persons' understanding of the real world. Persons naturally formulate everything that is the case (what there is, what goes on, what occurs, and how things are) as part of a single, conceptual totality.

This totality is structured in terms of behavioral patterns. It is a single domain in which every behavior, social practice, institution, and way of life has a relationship to every other behavior, social practice, institution, and way of life. Within that domain, individual behaviors, social practices, institutions, etc., have sub-domains, such that everything that is needed for the successful enactment of a behavioral pattern has a place in the pattern's sub-domain. In this “placeholder” scheme, the top-level places (statuses) are for behaviors, and behaviors in turn have places (statuses) for everything that is involved in their enactment. Everything—including the ‘natural’ world and every item in the natural world—has a status in

the real world by virtue of the place that it has in the behavior of persons.

A totality of this sort is of far greater complexity than the worlds depicted by Copernicus or Descartes. When we say that every behavioral pattern has a place in relation to every other behavioral pattern, we are not speaking of a location in three-dimensional or four-dimensional space. As Ossorio (1998) cautions, “Keep in mind that the real world has many more dimensions than the spatiotemporal ones. Personal, interpersonal, and social phenomena require many additional conceptual dimensions in order to delineate the various phenomena adequately. We live in the real world, not an abstract world of time and space.” (p. 31)

The formulation of a multidimensional, behavioral totality may seem like a remarkable achievement, but it comes naturally to persons. Very young children are limited to behaving within the scene/situation of the moment, and are dependent on their parents and other persons to provide the holistic structure of a world for them. But they quickly learn enough of the interconnections in the real world so that parents observe, “She has her own world.” By the time that normal children are 3-5 years old, they have achieved an understanding of how things fit together in the real world.

What is the primary point of having this kind of conceptual totality? It is *not* to have a catalog or taxonomy of everything that is “out there”. The primary point of having the framework is that it codifies possibilities and non-possibilities for behavior. We can treat a formulation of the real world as a bookkeeping system for codifying what we can and cannot do. The bookkeeping reflects the patterns, regularities, limits, necessities, etc. of the real world, and enables us to make our way in the world easily and naturally, “just like an experienced bookkeeper looks down your balance sheet and he goes this way and this way, and he has the picture” (Ossorio, 1990, p. 23).

Ultimates

The concept of a world also involves the concept of an “ultimate”. The ultimates in a world are whatever is accepted as fundamental. In the celestial world, there are ultimate objects—the sun, the moon, the earth, and the planets. In the world of analytic geometry, there are numbers—integers, rational numbers, and real numbers. In atomistic approaches to the real world, there are indivisible objects—corpuscles or atoms or subatomic particles. Wittgenstein (1954) prescribed taking the behavior of persons as ultimate: “What has to be accepted, the given, is—so one could say—*forms of life*” (p. 226e).

The choice of ultimates sets limits to what sorts of facts and what sorts of relationships are possible in a totality, and hence to the kind of world that it is. For example, there is no place for indeterminacy in the world of the heavenly spheres. “The movement of the celestial bodies is regular, circular, and everlasting—or else compounded of circular movements” (Copernicus, 1543/1947, p. 49). It is a clockwork world, in which all of the interrelationships in the system are determined.

In contrast, a totality in which forms of behavior are accepted as ultimate is an indeterminate world. People can create new forms of behavior, such as new games, scientific procedures, religious practices, art forms, etc. While some of these inventions fit neatly in the existing structure of the real world, others “call for far-reaching restructuring of our formulations of the world or parts or aspects of it” (Ossorio, 1982/1998, p. 72). They may change the interrelationships among behaviors within the structure, or add new dimensions that increase the complexity of everything.

This concept of the real world is fundamentally different from the kind of real world that we learned to take as given in school. We were taught, along with our lessons in chemistry, physics, and biology, that we do not have anything to do with the real world being what it is. The real world is simply, transcendently, “out there”, and in no way depends on us. But if the behavior of persons is accepted

as ultimate, “there is no real world that in a logical sense is truly external to human lives” (Ossorio, 2006, p. 304).

As noted earlier, everything that is needed for the successful enactment of a behavior pattern has a place in the world built into the pattern. If the behavior pattern is chess, there is a place for a pawn, and the particular place that a pawn has in the game of chess is what makes a pawn a pawn. (It is not as though first there were pawns, rooks, etc., and then we discovered what they could be used for.) Without the game of chess, nothing could possibly be a pawn.

If the behavioral pattern is atom-splitting, there is a place for a neutron bullet. The particular place that a neutron bullet has in the process of atomic fission is what makes a neutron bullet a neutron bullet. (It is not as though first there were neutron bullets, atomic bombs, etc., and then we discovered what they could be used for.) Without the behavior of splitting atoms, nothing could possibly be a neutron bullet.

Thinking seriously about everything in the real world in this way may give readers a touch of intellectual vertigo. We are accustomed to think of the real world primarily in terms of the historical particulars that we see when we look around us. But in a world in which forms of behavior are taken as fundamental, the structure of behavioral patterns and statuses is primary. Only *secondarily* does the real world consist of the historical particulars that we assign to these statuses (cf. Ossorio, 1982/1998, p. 123).

Boundary Conditions

Some totalities can be easily and neatly bounded. Even if a game “is not everywhere circumscribed by rules”, we can say what counts as a legitimate move in a game (Wittgenstein, 1934, p. 33e). In contrast, we encounter difficulties when we try to say what the boundaries are for domains like the universe or the behavioral world. For totalities like these, a boundary condition is used rather than a boundary. “What’s characteristic of a boundary condition is that it is not located anywhere in the space. It’s not about some part of

it. It's not about some place in it. It's a statement about the whole thing that makes a difference in what happens within that space." (Ossorio, 1996) Examples of how cosmologists have handled the question, "What are the limits of the universe?", help to illustrate the difference between a boundary and a boundary condition.

In *De Revolutionibus*, Copernicus (1543/1946) addressed the question of limits as follows. (The accepted belief in the 16th century was that the universe was finite.)

"They say that beyond the heavens there cannot be any physical body or place or void or anything at all, and accordingly it is not possible for the heavens to move outward: in that case it is rather surprising that something can be held together by nothing. But if the heavens were infinite and finite only with respect to a hollow space inside, then it will be said with more truth that there is nothing outside the heavens, since anything that occupied any space would be in them."
(p. 59)

Following this reasoning, he used the inner concavity of the sphere traditionally associated with the fixed stars as a boundary for the finite space containing the sun, moon, earth, and planets (cf. McColley, 1942, p. 136). The fixed stars were on the other side of this boundary, and hence not in his domain of interest.

This was sufficient for Copernicus' purposes, and he did not need to take a (heretical) position on the limits of the universe. He also did not need to introduce a boundary condition. He concluded that "we do not and cannot know the limits of the world", and decided "to leave to the philosophers of nature the dispute as to whether the world is finite or infinite" (Copernicus, 1543/1946, p. 59).

When Copernicus considered the question, he was visualizing the universe in three-dimensional space, but today the geometry of the universe is formulated in four-dimensional space-time (which is hard to visualize). The universe does not have boundaries in four-dimensional space-time, but it does have curvature. One of the ways that cosmologists use the concept of space-time curvature is to talk

about the constraints on the universe. “If it has negative curvature, it will expand forever.” “If it has no curvature, the rate of expansion will slow down.” “If it has positive curvature, the universe will eventually stop expanding and begin contracting.” In these examples, the concept of space-time curvature is a boundary condition.

The real world is also “expanding”, i.e., increasing in possibilities and complexity. People create new forms of behavior (e.g., nuclear fission), which in turn reveal new possibilities (e.g., nuclear reactors), which in turn lead to new inventions (e.g., nuclear marine propulsion), and so on. “What are the limits on what we can do?” To handle that question, we need to introduce a boundary condition.

“Reality” is the technical term for “the boundary condition on possible behaviors” (Ossorio, 2006, p. 118). “Reality” is sometimes used interchangeably with “the real world” in the vernacular, but they are *not* interchangeable in the Person Concept. “Reality is more fundamental than a real world, since [a world of behavior patterns] encodes some of our behavioral possibilities and limitations but not all, and that encoding itself may result in unnecessary constraints.” (Ossorio, 2006, p. 120)

Consider a historical example. In 1667 Johann Becher proposed that all flammable substances contained phlogiston, which was released when a substance was burnt. His theory was widely accepted, and for more than 100 years, chemists made observations and designed experiments to detect the phlogiston that was freed by burning different materials. In 1772 Daniel Rutherford liberated a gas that others treated as “phlogistated air”, and in 1774 Joseph Priestley released “dephlogistated air”. Then, between 1775 and 1789, Antoine Lavoisier proved that air is a mixture of two gases, nitrogen (formerly treated as phlogistated air) and oxygen (formerly treated as dephlogistated air), and he explained how combustion works *without* using the concept of phlogiston. Phlogiston lost its status as a real substance in the real world.

The real world of chemistry in the 1600’s did not encode all of our behavioral possibilities in that domain, nor could it have. Before Lavoisier invented the conceptual system that involved

distinguishing oxygen, nitrogen, hydrogen, etc. from other elements and treating them accordingly, there couldn't have been any behaviors that involved these distinctions. (Cf. Before the game of chess was invented, there couldn't be a behavior of moving "Pawn to Queen 4". There also couldn't be a limitation that "The King can only move one square at a time.") The 17th century bookkeeping was an incomplete and inexact codification of our behavior potential, because more things were possible for us.

The 17th century encoding also resulted in an unnecessary restriction on the behavior potential of chemists. Once Phlogiston was created and accepted by chemists as a game to play, it made sense for them to try to release phlogiston. (Cf. Once Chess was created and accepted as a game to play, it made sense to try to checkmate the other player's King.) For more than a century, chemists devoted their time and energy to the game, as opposed to other avenues that they might have explored. But it was a losing game. There was no way to win at Phlogiston, because there was no element in the natural world that could fill the essential status. (Historical particulars may be secondary, but they are necessary for the successful enactment of behavioral patterns.)

Notice the difference in how the concepts of the real world and reality are used in the Person Concept. Both are content-free, placeholder concepts, but we fill in *substantive* content for the real world. Doing so is fundamental to being a person. In contrast, we *cannot* give definitive content for the concept of reality. Providing that content is not one of our behavioral possibilities. Rather than being a substantive concept, reality is a *methodological* concept. Questions like, "What can we get away with by way of behavior?" or "Can we treat something as being so and carry it off?" are reality-based questions.

Recall the Red Queen's (methodological) approach to any and all difficulties: "Off with their heads." She encounters a (substantive) problem when only the head of the Cheshire-Cat appears before her. Can her executioner behead the cat if the cat only has a head? Frustrated, she declares, "Off with everybody's head." Can her

executioner carry out that command? The concept of reality provides the necessary anchor for a behavioral world. Even in Wonderland, we cannot “construct just any old world and get away with it” (Ossorio, 1982/1998, p. 73).

Reality-based Empiricism

In the world of 17th century science, there was no need for the concept of a “boundary condition on possible behaviors”. In light of the publication of Copernicus’s heliocentric model of the universe, the behavior potential that mattered to scientists was detecting causal patterns in the natural world and representing those patterns geometrically and mathematically. Persons were limited to being merely spectators of the natural world.

Feynman (1966) summarizes the traditional scientific world view as follows: “We can imagine that this complicated array of moving things which constitutes ‘the world’ is something like a great chess game being played by the gods, and we are observers of the game. We do not know what the rules of the game are; all we are allowed to do is to *watch* the playing. Of course, if we watch long enough, we may eventually catch on to a few of the rules...” (p. 24).

Ossorio (1978) characterizes the basic form of scientific empiricism in this world as “pictorial” or “real-world-based”. For example, a 17th century scientist might have asked, “Does the picture of combustion offered by phlogiston theory apply to what we actually observe in the real world?” In the idiom of Feynman’s chess game model, another question might have been, “Are the circular orbits described by Copernicus a true picture of how the gods move the (planetary) pieces?” Because the goal of science was to achieve a complete understanding of the “rules of the game” of the natural world, the natural world itself functioned as a limit on what scientists could say.

The behavioral world is fundamentally different. *Pace* Feynman, “we can imagine that the multidimensional space of behavioral patterns which constitutes ‘the world’ is a great bookkeeping system

which codifies our behavior potential. We formulate the system, and we reformulate it whenever we discover that our encoding is incomplete or incorrect.”

What form of scientific empiricism makes sense in this kind of world? Think about what the bookkeeping system of a business is like. The account sheets in a general business ledger have columns headed “date”, “item”, “posting reference”, “debit”, “credit”, and “balance”. Each of these headings holds a place for facts about business transactions. Taken together, the headings organize the facts into a form useful to a businessman. The system is open-ended in so far as additional columns can be added if placeholders are needed for different kinds of facts. But before adding a new column, an accountant generally asks, “What’s the point?” If the new column does not make a difference in some business-related behavior, it will probably not be added.

Ossorio (1971/1975/1978/2005) characterizes this kind of approach as “methodological” or “reality-based”, and it is the form of empiricism that makes sense in a behavioral world. With respect to accepting new scientific formulations, he offers the following formula as a guideline: “Has it been demonstrated that *as a matter of fact there is a point in talking that way?*” (p. 36). The expectation is that the answer to the question will be “Yes”, and a scientist will move on to elaborate: “*When* is there a point in talking that way, and *what* is the point then?” (p. 98). A scientist may claim that there is a point in talking a certain way and acting accordingly, usually in a given context or for a given purpose, without any associated claim to truth or universality (Ossorio, 1985, p. 36).

This is not to say that the traditional scientific values of accuracy, range of applicability, consistency, etc., do not matter in what we accept. But the primary value of scientific formulations in a behavioral world is that “they can be used effectively *in* some form of human behavior” (Ossorio, 1968/1981, p. 52). There is a point in talking a certain way, even if it is not literally true or universally applicable, if there are forms of behavior that involve talking that way.

The Actor-Observer-Critic Loop, a conceptual resource in the Person Concept, is helpful in seeing the new formula in action. Briefly, Actor, Observer, and Critic are the designations for three jobs that persons master and that are fundamental to their behavior. The job of Actor is to “do one’s thing”, to create one’s behavior out of nothing. The job of Observer is to note how things are going, what is the case, what is happening, etc. The job of Critic is to evaluate if things are going okay, diagnose the problem if they are not going okay, and prescribe what to do differently as needed. The three jobs form a feedback system. As Actor, I initiate a behavior. As Observer, I monitor its course. As Critic, I evaluate and feed the evaluation back to the Actor. My participation in any behavior pattern is a matter of doing all three jobs simultaneously.

When scientists are “doing their thing” as scientists, the reality-based Critic evaluates, “Is there a point in talking that way?” As long as there *is* a point the Critic prescribes, “Keep going.” If there is *not* a point, the Critic may recommend that the Actor do something else.

There is an interesting parallel in physics to the distinction between real-world-based and reality-based empiricism. Some physicists in effect take a reality-based approach to quantum mechanics: “Is there a point in talking about photons, hadrons, quarks, etc.?” The range of new behaviors (e.g. the use of lasers) that involve these concepts demonstrates that there is a point in talking that way. Other physicists recognize the behavioral value of the concepts, but nonetheless adhere to a traditional, real-world-based approach to empiricism. Einstein, for example, treated quantum mechanics as logically consistent and useful, but believed that it was “not yet complete” because it “seems not to present us with any fully *objective* picture of physical reality” (Pais, 2005, p. x).

The Real World + x

What happens when there are things that we can do in reality, but those things do not fit in the real world?

In the 16th century, mathematicians were faced with the problem of solving quadratic equations such as $x^2 + 1 = 0$. The problem wasn't solvable if mathematicians restricted themselves to real numbers, because the squares of both positive and negative real numbers are positive. An Italian mathematician, Rafael Bombelli, offered a solution by proposing that mathematicians proceed *as if* there were a number whose square is -1, and he showed how to do addition, subtraction, multiplication, and division with such numbers. Mathematicians found his solution useful and began to work with the new numbers.

In the 17th century, Descartes formulated his system in which integers, rational numbers, and real numbers could be represented geometrically. Unfortunately, he did not see a way to represent Bombelli's numbers geometrically. Because there was no place for them in his geometry, he degraded them as "imaginary" and recommended against their use.

There was a net gain in behavior potential for mathematicians from Descartes' masterful creation of analytic geometry. Nonetheless, mathematicians of the day were not willing to suffer the loss of the behavior potential that went with throwing out Bombelli's numbers. Rather than accept an unnecessary restriction, they created a mathematical world $+x$, i.e., an elegant geometrical scheme of things plus the non-fitting reality of imaginary numbers. They acted on the idea that there is a point in having imaginary numbers, even though they're not "real numbers", if there are equations that they could solve using the numbers.

Bombelli's numbers had the status of "imaginary" until the end of the 18th century when Caspar Wessel, a Norwegian mathematician and surveyor, demonstrated their geometrical significance. Today they are granted full status as part of the system of complex numbers and are considered "absolutely fundamental to the structure of quantum mechanics" (Penrose, 1989, p. 236).

There is an interesting parallel to imaginary numbers in the development of children. A young child initially has a diversified reality rather than a single, coherent real world. In other words, a child has lots of scene/situations that are real to him or her, i.e.,

lots of things that he or she is prepared to act on. Part of the job of parents is to put pressure on the child's reality constructions to conform to the requirements for a single, public real world.

The child's reality may be more extensive or diverse than can fit into a single totality, however. Children acquire the ingredients for a real world in a piecemeal way, and sometimes when they go to put these ingredients together into the structure of a real world, there are pieces left over. When parents begin to impose the logical restrictions called for by the real world, children may simply throw out the non-fitting parts so that the reality constructions that are left hang together with the kind of consistency that the real world (and the parents) require.

Under some conditions, parents are not completely successful at holding children to real world requirements for coherence and logical consistency. Children, instead of throwing out those ingredients that are real for them but do not fit in the parental world, recreate some of the non-fitting parts in the form of imaginary companions. In other words, young children create a real world + x , where x is their imaginary companion. For a child there is a point in having an imaginary companion, even though it's not literally real, if there are meaningful things the child can do that involve the companion (cf. Roberts (1988, 1991, 2006)).

Imaginary numbers and imaginary companions are analogous to reality-based empiricism. Notice:

- There is a point in having imaginary numbers, even though they're not "real numbers", if there are equations that mathematicians can solve using the numbers.
- There is a point in having an imaginary companion, even though it's not literally real, if there are meaningful things the child can do that involve the companion.
- There is a point in talking a certain way, even if it is not literally true or universally applicable, if there are forms of behavior that involve talking that way.

The x for mathematicians in the 17th century was the non-fitting reality of imaginary numbers. The x for young children is the non-fitting reality of an imaginary companion. The x for scientists is the new way of talking that does not yet fit in the existing structure of the real world.

A real world + x is a fundamentally different bookkeeping system from the one that the majority of us use in our behavior. Paradigmatically, everything fits together and everything is connected to everything else in our codifications of the real world. But in a real world + x , there is an irregularity, an inconsistency in the bookkeeping. That would be an anathema to most traditional scientists.

For example, Kepler observed a discrepancy of eight minutes of arc between the predicted and the observed position of Mars in its orbit. (One minute of arc is equal to one sixtieth of one degree.) He considered 2' an acceptable observational error, so he could not dismiss the larger error, even though it seems negligible. A deeply spiritual scientist, he knew that God's totality did not have irregularities, and the discrepancy helped him to see that planetary orbits are elliptical, not circular. He later wrote, "Because these 8' could not be ignored, they alone have led to a total reformation of astronomy."

Luminiferous Ether

What is real is what it makes sense to act on, and it contrasts with what is "imaginary", "illusory", "hallucinatory", etc., i.e., what it does *not* make sense to act on. Persons operating in a real world + x recognize *ex ante facto* that they are acting on objects that are not real in the ordinary way. They therefore only behave in ways that are appropriate for objects in a special status, i.e., "real but not like other real objects" (e.g., real but not like other 'real numbers'). In contrast, theories that have a respectable, accepted place in the scientific world sometimes turn out to be about "imaginary" objects and processes. *Ex post facto*, scientists discover that they have been

treating something imaginary *as if* it were real, as illustrated in the following brief historical account of the theory of special relativity.

In the late 19th century it was a given that light waves required a medium in which to travel. This medium was known as luminiferous ether, and scientists believed that it was the absolute frame of reference for motion, i.e., the one frame of reference that was truly at rest and hence could be used to find the real velocity of the earth. In 1887 Michelson and Morley designed their ingenious experiment to measure the velocity of the earth relative to the immobile ether once and for all. The velocity that they measured was essentially zero.

Scientists were dumbfounded by this outcome, and a number of physicists began work on explaining what had gone wrong. They of course knew Galileo's principle of relativity: There is no local way to distinguish uniform motion from rest. It explains why we do not detect the motion of the earth around the sun. The Galilean transformation was also a given: A simple equation ($x' = x - vt$) can be used to convert between the viewpoint of an observer at rest and the viewpoint of an observer in motion. But that transformation can only be used for velocities much less than the speed of light, so it was not applicable in the context of the Michelson and Morley experiment.

In 1892/1895 Hendrik Lorentz, a Dutch mathematician and physicist, created a new theorem to explain the relationship between the viewpoint of an observer at rest *in the ether* and the viewpoint of an observer in motion *relative to the ether* at a velocity close to the speed of light. An important part of his theorem was the equation for "local time" ($t' = t - xv/c^2$). Using this time transformation he was able to invent a set of equations analogous to the Galilean equation that could convert between observers' frameworks when one observer is moving close to the speed of light.

In 1905 Henri Poincaré, a French mathematician and physicist, modified and finalized the equations of Lorentz, named them the "Lorentz transformation", and recognized the significance of what Lorentz had accomplished. Lorentz had successfully explained the "failure" of the Michelson and Morley experiment by demonstrating

the “principle of relative motion”, i.e., that it is impossible to detect uniform motion relative to the immobile ether.

Later in that same year, Einstein published his theory of special relativity. In contrast to Lorentz and Poincaré, Einstein threw out the concepts of ether and an absolute frame of reference, and showed that all inertial frames of reference are equivalent for measuring motion, space, and time. His formulation was elegant and was quickly accepted.

From the behavioral perspective, the explanations where ether could be used are what gave it a place in the real world for almost 100 years. The Michelson and Morley experiment sounded the knell for luminiferous ether because it demonstrated that there was a point in *not* talking that way. The final degradation of ether came in 1905 when Einstein offered a viable alternative. Once luminiferous ether was no longer needed for explaining phenomena, it was degraded as useless. As with any degradation ceremony, the significance of the ceremony is that “What ether is now is what, ‘after all’, it was all along.” It was an imaginary substance, a phantasm.

What was the point?

When scientific theories turn out to be about imaginary processes and objects, it puts traditional scientists in an awkward, if not impossible, position. From an *ex post facto* perspective, the value of the work to which they have devoted their lives is called into question. In the face of this kind of threatened degradation, theorists may affirm the legitimacy of their theories. Joseph Priestley maintained until he died that he had released dephlogistated air, and Hendrik Lorentz never fully accepted the degradation of ether.

Did it not make sense for scientists to act on these concepts? The question will serve as a vehicle to deepen our understanding of the indeterminate behavioral world. First, consider the question from the traditional pictorial perspective. In that world, scientists are merely spectators, trying to figure out “the rules of the game being played by the gods”. Language from this perspective is primarily

a set of labels that we put on logically pre-existing objects, objects that exist in the world independently of words and to which words refer. Thus, “luminiferous ether” refers to a logically pre-existing ‘referent’ labeled “luminiferous ether”, and scientists studying it try to understand what part it plays in the natural world.

What is the significance when scientists find out that there is *no such entity*? For example, what if I spend my life researching quonks in chess, and then I find out that “quonks” doesn’t refer to anything in the game? There is not now, and never has been, anything labeled “quonk” in a game of chess. My life work amounts to a substantive zero. Friends might try to comfort me by reminding me that, “That’s just how science works. One hundred years of phlogiston prepared the way for Lavoisier’s new paradigm; 100 years of luminiferous ether prepared the way for Einstein’s breakthrough; and almost 2000 years of circular orbits prepared the way for Kepler’s ellipse.” Being reminded of that larger context offers little comfort if *my* work on “quonks” did not really make sense.

How does it look from a reality-based perspective? In the world of methodological empiricism, scientists are primarily Actors, “doing their thing”, reformulating parts or aspects of the world in ways that reveal new behavior potential. They use the question, “Is there a point in talking that way?” as a guideline in evaluating their work.

The approach to language in this world is non-referential. Language is a set of social practices in which people make certain distinctions because they have forms of behavior that call for those distinctions. For example, “pawn” is not primarily a label for an object out there. Instead, “pawn” is a distinction that is made by chess players because it is called for in the game of chess. “Luminiferous ether” is a distinction invented by scientists because it was called for in their behavior. (“Space-time curvature”, “oxygen”, and “neutron” are also distinctions invented by scientists.)

What is the significance when scientists find out that they cannot bring off certain behaviors that involve the invented concept? They have demonstrated that there is a point in *not* talking that way in that context, under those conditions, for that purpose, etc. (There is

no claim to universality with reality-based empiricism.) It does not invalidate all of the other ways of using the concept that have been demonstrated to be effective. Thus, the degradation of luminiferous ether did not invalidate the Lorentz transformation or the Lorentz equation for time, mathematical formulas that are still in use today. Because there was a point in talking about luminiferous ether in those contexts, Lorentz' work using the concept did not amount to a *methodological zero*.

After Einstein published his theory of special relativity, Lorentz spoke about ether in this way: "According to Einstein, it has no meaning to speak of motion relative to the ether... As far as this lecturer is concerned, he finds a certain satisfaction in the older interpretations, according to which the ether possesses at least some substantiality..." (Pais, 2005, p. 166). Lorentz affirmed that interpreting things using the concept gave him satisfaction, i.e., the *behaviors* continued to have value for him.

But isn't Luminiferous Ether a losing game just like Phlogiston? (There obviously is *no* element in the physical world that can fill the essential status.) Didn't it create an unnecessary restriction on the behavior potential of scientists? (Some historians believe that if only Lorentz and Poincaré could have let go of luminiferous ether, they would have created the theory of special relativity first.) Isn't it obvious that if Luminiferous Ether had not been invented, it need never have existed?

Those things are obvious now, *after* the Michelson and Morley experiment and *after* Einstein's invention of the theory of special relativity. But that does *not* mean that the behaviors that scientists engaged in for 100 years did not make sense. Instead, those facts illustrate the way in which the real world is an *ex post facto* world.

Ex post facto laws are laws that apply retroactively, i.e., they extend back in time to a date prior to their enactment. For example, if City Hall passes a law that makes it illegal to drive over 55 miles per hour and sets the effective date to be 10 years earlier than the date of the passage of the law, then anyone who has driven over 55 mph in the

past 10 years is now a criminal, even though at the actual time of the deed, the person did not commit a crime.

Einstein's degradation of luminiferous ether is like the passage of an *ex post facto* law. Before the publication of his special relativity theory, scientists who used the concept of luminiferous ether were at a minimum participating in the accepted social practices of the scientific community, and their behavior made sense. After he demonstrated that the concept was unnecessary, it became the case retroactively that scientists had been playing a losing game all along, and that they had been operating with an unnecessary restriction on behavior potential.

That kind of phenomenon is commonplace in a behavioral world, in which we create new forms of behavior. Because the behavioral world is a totality, when we accept a new form of behavior that changes the interconnections among other behaviors, that also changes *what* things are in the real world. What a particular behavior is (its place, its significance) depends on the whole of which it is a part. The new forms of behavior that are accepted into the totality may generate a net increase in behavior potential for the community, but sometimes at the cost of a loss of significance and status for older forms of behavior. (This is a well-known phenomenon in times of rapid social change. Social innovation calls into question the legitimacy of the lives of elderly persons who have followed the old ways.)

Even if we grant that it is unfair to judge the behavior of scientists by *ex post facto* laws, there is still something disquieting about the fact that scientists acted on imaginary concepts for such long periods of time. Why did it take 100 years to recognize that there is nothing in the natural world that can be cast for phlogiston? Why did it take roughly 2000 years for us to realize that planetary orbits are not circular?

In a behavioral world, everything that is needed for the successful enactment of a behavior pattern has a status in the world built into the pattern, and each status carries with it standards by which an individual embodying the status is properly to be judged.

When we engage in actual behavior, we assign particular, historical individuals to occupy each of the statuses called for by the pattern, and evaluate and treat them accordingly. For example, if we are playing baseball, there are statuses for the bat, the ball, the bases, the pitcher, the catcher, the first baseman, etc., and we cast particular individuals (persons and non-persons) for each of these parts. We judge how well the pitcher plays his or her part in the game by things like number of strikeouts, hits allowed, walks allowed, wild pitches, etc., and vary our strategy as hitters accordingly.

In general, if we cast effectively, i.e., if we assign historical individuals to statuses that are a good fit for them, it will be easy to bring off the behavior pattern successfully. If we cast poorly and assign individuals to parts they cannot play, there may be no point in trying to bring off the behavior. Between these limits, there is an awkward range in which the match between a given individual and a status is not good enough for an enactment of a behavior pattern to be non-problematic, but not bad enough for us to quit trying to enact the pattern. In these situations, we try to compensate for the inadequacies of particular individuals, adjust our standards, make allowances, ignore mistakes, evoke relevant strengths, etc., for the sake of preserving behavior potential. We generally do not ask, “Is there something wrong with the pattern?” After all, the pattern is encoded in our bookkeeping system as a possibility for our behavior, as something that it makes sense for us to do.

In the 2nd century, when Ptolemy created his system for calculating planetary position, he took it as a given that planetary orbits were circular, in accordance with the Aristotelian tradition of the perfection of circular motion. He was aware that *actual* planetary orbits had “eccentricities”, i.e., they were not a perfect match for the status of “circular”. He therefore introduced epicycles, small loop-back circles, to compensate for the observed irregularities. Over the centuries, astronomers repeatedly detected additional inconsistencies between the orbits they observed and perfect circularity. Whenever they did, they simply updated the system to allow for them, and the system became increasingly ad hoc, jury-rigged, and complex. (A

Castilian king, studying the Ptolemaic system in the 13th century, groused: “If the Lord Almighty had consulted me before embarking upon the Creation, I should have recommended something simpler.”)

When Copernicus formulated his heliocentric picture in the 16th century, he was very familiar with all of the adjustments needed to help eccentric planetary orbits succeed at being circles. Even after his switch to a heliocentric model, there were still orbital irregularities. Nonetheless, he did not question the basic pattern, “predicting the position of a planet in its (circular) orbit”. Instead, he introduced a new computational procedure, possibly borrowed from Muslim astronomers, to help with the calculations. His system was no easier to use than Ptolemy’s, and astronomers stuck with the old but familiar, difficult and complex system.

Inspired by Copernicus’ *De Revolutionibus*, Johannes Kepler finally questioned the pattern, threw out epicycles as absurd, and showed that planetary orbits were elliptical, not circular. He formulated laws for “predicting the position of a planet in its (elliptical) orbit” and published them in *Astronomia Nova* in 1609. The match between the status of “elliptical” and the actual planetary orbits was perfect, and astronomers were free from “the millstones (as it were) of circularity” (Kepler, 1609/2004, p. 27). His work was ignored by his contemporaries Descartes and Galileo, but gained acceptance into the bookkeeping system of the real world after it was accredited by Isaac Newton.

The longevity of imaginary concepts in science reflects the inertia of behavioral patterns in our bookkeeping system. Both are illustrative of the significance of our formulation of the real world for our behavior. As Ossorio (1990) puts it, “It’s not just idle talk or pretty metaphor to say that the world, the real world, is a way of codifying our behavior potential.” (p. 33) We act on that codification and pay a price for its limitations.

Conclusion

Copernicus, Descartes, Kepler, and Newton were revolutionary system builders who changed how we see and treat the world. Their remarkable appreciation of issues of totality and logical structure is reflected in the systems that they created in the 17th century. They set the standard for the elegant formulation of worlds as closed, determinate systems.

Ossorio, also a revolutionary system creator, recognized that the 17th century standard was *not* appropriate for a world that includes persons. Not accepting the unnecessary restriction on behavior potential that it entailed, he formulated the real world as a behavioral world, i.e., as a bookkeeping system for codifying our behavior potential.

Unfortunately, the concept of a behavioral world is sometimes hard to accept, in part because we do not easily let go of 400 years of intellectual and scientific tradition. Einstein encountered the same problem when he was faced with the implications of quantum mechanics. In 1931 he expressed his reluctance in these words: “Newton, forgive me... The concepts which you created are guiding our thinking in physics even today, although we now know that they will have to be replaced by others farther removed from the sphere of immediate experience, if we aim at a profounder understanding of relationships.” (quoted in Pais, 2005, pp. 14-15)

If we can let go of the concept of the real world as something “out there”, categorically independent of us and our behavior, then Ossorio offers a viable replacement, one that enables us to achieve a profounder understanding of the relationships between persons, behavior potential, and the real world.

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Children's Imaginative Play: A Descriptive Psychology Approach

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Abstract

The significance of children's imaginative play is presented from the perspective of Descriptive Psychology and in particular Ossorio's Dramaturgical model of persons. The fluidity of imaginative play, the imitation of and creation of social practices and options within play as well as the opportunity to switch roles and act according to reasons of another, contribute to the development of judgment. The observer-critic role emerges during imaginative play as children produce, direct, and enact their dramas. Within these scenarios, children develop competence and eligibility to be not only status assigners but also self status assigners. During play, children distinguish the concept of community, create play communities, and develop the eligibility to be members in more than one community simultaneously.

As Snoopy takes aim at the Red Baron, we are taken back to our childhood. We've pretended to be Mickey Mantle hitting the game winning homer and we've planned and carried out imaginary tea parties. Whether it is our own child playing with action figures, or more recently directing his avatar around World of Warcraft, imagining ourselves as another, playing out these roles, and seemingly renewing ourselves in the process are familiar forms of human activities.

Theorists over the years have developed a range of ideas about the value of children’s play and expressed concern about the impact of over-regulating children’s play. This paper begins with a brief overview of these ideas by way of background and then explores the value and significance of children’s imaginative play using concepts from Descriptive Psychology.

Traditional Perspectives on Play

The development of intelligence and concepts

Piaget (1962) in his “Play, Dreams, and Imitation” set forth his concepts of the development of thought. He discusses his ideas of assimilation or the child’s tendency to see the world only from his own point of view, and accommodation as the child’s ability to learn to live in the world, involved in the development of thought from the sensory-motor stages through concrete operations. These included the child’s development of the ability to switch perspectives. How the child plays becomes expressive of her developing intelligence, of the stage of intelligence she is in.

Self regulation

Early theorists such as Schiller and Hall focus on the energy dissipation or the instinct weakening nature of play (Verenikina, Harris, and Lysaght, 2003; Singer and Singer, 1990). Others such as Berlyne and Ellis described play as helping to maintain a balance in a child’s need for increases or decreases in stimulation (Verenikina et al, 2003). Lazarus described play as helping to reenergize a child; play was an antidote to work (Verenikina et al, 2003). Contemporary writers such as Howard Chudacoff (2008) have indicated that 21st century Western children play differently from their ancestral counterparts. He contends that it’s the shrinking of imaginative space, time, place, and encouragement to pretend, that has impacted

a child's ability to delay gratification. Berk (2008) describes "private talk" as developing in imaginative play, giving children the ability to self regulate.

Socialization and preparation for adulthood

Many theorists have focused on socialization through play. Piaget was clear that the child goes from egocentric play to more and more social play: from imitative to imaginative play alone, to imaginative play with others, to games with rules. Vygotsky notes how children play out concerns of their communities (Verenikina et al, 2003; Singer and Singer, 1990). Erikson (1963) describes imaginative play necessarily and significantly taking on forms of the child's culture. He worries that modern children's play is less and less linked to the actual tasks of modern adult life. Chudacoff, Erikson, and others see our technological society as reducing opportunities to stimulate the imagination of children.

The self and self concept

The psychoanalytic theorists (Freud, Erikson) see children playing out negative emotions in a safe context. Children are attempting to regain control in situations of conflict. Mead stresses the importance of role playing in children's play, which activity contributes to a child's sense of self (Verenikina et al, 2003).

Erikson (1963, p.240) in describing a young client struggling with the wartime death of his father, a pilot, illustrates the healing value of play: "...he was observed swooping down a hill on a bicycle, endangering, scaring, yet deftly avoiding other children.... In watching him, and hearing the strange noises he made, I could not help thinking that he again imagined himself to be an airplane on a bombing mission. But at the same time he gained in playful mastery over his locomotion; he exercised circumspection in his attack, and he became an admired virtuoso on a bicycle."

This description of a young boy playing imaginatively illustrates elements that theorists over the years have attributed to the value of play. His role play was distinctly social as others witnessed his attack, and his actions increased his stature, his prestige among his friends. His ability to handle the bike, his cognitive strength, “circumspection in his attack”, as he swoops down the hill, is noted as well. His self esteem increased to the extent that he noticed how “admired” he was by his peers.

Theorists over the years have attributed to the value of children’s imaginative play cognitive development, self regulation, increase in self esteem, and socialization. But on the other hand, play is seen as just fun, as done for the sake of itself, as non problematic activity that is the opposite of work; play is recreation, relaxation, and renewal.

Ask any kid why he’s pretending to be a pirate, a sports hero, or a dancer, and he will answer that he’s having fun. But we psychologists would say yes, but you’re also increasing your cognitive ability, strengthening your ego, learning to socialize, becoming less impulsive, and improving your judgment.

But can’t children do all this in adult activities in which they learn how to deal with the world? What is it about the nature of child’s play that facilitates the development of those psychological abilities noted above? Engage kids in productive activities, and they should learn about the world and how to deal with the world. Can’t they develop “private talk” while learning to fix a car, plant a garden, add 2 and 2, or sell a washing machine? Isn’t the praise of their parents and other adults enough to establish and maintain their self esteem? How about teaching them to be social by taking them to your office and allowing them to interact with the office staff?

Erikson’s example illustrates familiar aspects of imaginative play, states of affairs we recall from our childhoods and recognize from the play of our children. This boy is making choices about new roles to play and as a result experiences a transformation from his ordinary self to his play role. The play consists of the development of stories and these stories are ways of making sense of a scenario or

scenarios. The stories put persons, objects, events, some set of states of affairs into relation to one another. Persons are story creators, authors of explanations of how our world works, how people treat one another, what to expect next, etc. (Roberts, 1985). Imaginative play is an early expression of this ability.

Play and the Dramaturgical Model

Ossorio (2006) has written about the dramaturgical model of persons. It will be helpful here to present a brief overview of this model as a guide to understanding the benefits of imaginative child's play.

He discusses how the dramaturgical model gives us access to persons' actual behavior; their acting in relation to other persons, as well as the circumstances, the context, community, and world in which a person participates. He notes that over time a person enacts versions of overlapping social practices, what can be described as dramas. These consist of "a structured behavioral episode or series of episodes that make sense to Us" (Ossorio, 2006, p.290). The limit for a particular person would be a life episode. One of the ways of describing behavior is that it is a matter of creating and realizing personal (my) and social (our) dramas. One's history of participating in such episodes can be characterized overall as having certain patterns that are unique to the individual person and are dramaturgical in the sense that a drama is unique to the characters and their roles in that particular drama. Hamlet showing up in "Death of a Salesman" won't work even though both he and Willy Loman are tragic characters. We understand Willy and Hamlet in the context of their particular life history as portrayed and not by any other life history. I regard myself in this way and other persons as well.

How a person is viewed by others and how that person thinks of herself is dependent on context and the place or places that a person is seen as occupying within that context. To have a place in such contexts and to act accordingly is to act in relation to ones

particular circumstances. The use of the concept “context” is to give a description in a dramaturgical pattern.

The concept “dramaturgical” gives us access to the idea, as well, that persons are operating on multiple relationships over time, and frequently several simultaneously. At any point I could be acting as a psychotherapist, a golfer, a husband, brother, father, friend and no one is surprised if while helping my daughter hit a better chip shot on a golf course I’m operating as dad, golfer, coach, psychologist, and friend simultaneously. The roles (cf. to statuses below) I am eligible for and choose to act on are dependent on context and can be quite unique for me.

What makes something a something, a piece of plastic a chess piece, a piece of wood a resting place, a certain demeanor a threat to me, the particular person I consider myself to be, is the place those individuals have in *my* world, on *my* stage. The props of my world are the objects that carry a particular significance to me and therefore I will act in relation to those in ways unique to me. The action of my drama is what happens through time. Those events can be characterized as having a certain place in my life.

We are the authors of our dramas to some degree. We can conceive of many ways of being (in fact, I am capable of imagining far more than is possible for me and most probably far more than is possible for the world around me), but reality constraints such as our person characteristics and the contingencies of the social practices we participate in put a limit on what behaviors we can actually carry off. For example, I could choose to be Tiger Woods, but I would have a hard time hitting a small green from 190 yards with a nine iron. I may want to be that type of golfer, but my person characteristics, in this case my golf playing talents, would limit me significantly. I may want to rob a bank to get rich, but the constraints of the community will limit this form of making a living. I may want to walk through walls, but the laws of physics, reality constraints, limit this wish.

How I judge to act in the world, what options I choose in relation to the persons in my life and how I choose, is a matter of my learning not only the conventional actions of my culture but also the patterns

of others actions, the significance of those actions. Significance is dependent on the context within which behavior takes place. Judging those situations and choosing appropriate actions are relative to the unique patterns of those situations. Those judgments are situational in nature. For example, Ossorio's (2006) examples of a "man saving his country" and "Dinner at Eight Thirty" illustrate situational judgments. To act accordingly, a person must understand the pattern, the context, of the performance of the behavior being enacted to understand what is going on.

Note the dramaturgical nature of Erikson's example above. Roles are being assigned, stories are being written, told, and acted out. The very nature of children's imaginative play is directly relevant to a child learning to operate as a person, that is, dramaturgically.

Play, Social Practices, and Behavior Potential

Ossorio (2006, p.170) states, "Every society at a given time has an organized set of social practices which constitute what there is to do for the members of the society. A member's behavioral history is the history of participating in these social practices."

Play is playing something, and playing something is a version of a social practice that a child is engaging in. Learning to participate in the social practices of the community is a way of learning one's part, one's lines relative to Our play (dramaturgically speaking).

Ossorio (1977) described the range of choice a child has during play as corresponding to a loosening of constraints that enhances the expansion of behavior potential: "...that to the extent that a person is playing, he is operating with a maximum freedom ..., because one plays in just those circumstances where there are not constraints that prevent one from having as options one's full range of behavior potential. The major constraint there is which game you're playing, or what you're playing...But part of the notion of not having constraints is that you can switch what you're playing, too. So you're about as free, there, to tap your behavior potential in play as you ever are. And people are sometimes in that condition and we call it

‘play’” (p.234). When children engage in imaginative play, they have the opportunity to expand the possibilities of how a social practice occurs and to expand their behavior potential within that practice.

Children as infants begin to imitate what they see significant others do. A child will attempt to make the sound a parent has made in speaking to them or do the actions that indicate a desired situation such as opening and closing his mouth when he is hungry. The child is mimicking the performance aspect of behavior. Children begin by imitating the social practices that they see others behaving according to, but then pretend play goes beyond imitation.

Ossorio (2006) describes versions of social practices based on the pattern of options that are chosen. Because play is non-problematic, children playing have loosened contingencies relative to the versions they act on. This gives a child engaging in play social practices the opportunity to create variations on the theme, new versions of a particular social practice, or totally new social practices. Imitation gives the child practice and experience in enacting the social practice initiated by significant others. A child pretending is incorporating that practice and expanding on its possibilities while at the same time learning to act authentically.

Roberts (1991) in her paper on imaginary companions states, “Persons are inherently world creators...They not only construct worlds that give them behavior potential; they also reconstruct those worlds in ways that give them more behavior potential...When a person invents a new form of behavior (e.g., a new game, art form, or conceptual-notational device), he or she may bring that invention to the larger community, demonstrate to others its viability as a social practice, and share it with them”(p.41). Children playing can invent new versions of social practices by imitating, deconstructing, and reconstructing those practices, and gain practice and experience operating as a person in a world of changing practices. But this is a synergistic system in which a child’s actions are checked against the contingencies of the practice. The community influences the way the play practices are created, staged and carried out.

Children playing imaginatively create scenes, scenarios, their own versions of the world as they know it modified by their person characteristics and the contingencies of the practice, the limits of the community. These limit-setting members of the community such as parents, teachers, relatives, coaches, and others modify the child's choices based on things such as danger, appropriateness, etc. This interaction between the ability to pretend, to invent and imagine, and the requirements of living in a community of others is an interplay crucial in development between the effects of Our world on My world and My World on Our World. Imaginative play is the microcosm, the play within the play, which shows us how this works.

The community may not only restrict the options available to a child in a practice, but it may also provide extra reason for a child to choose in certain ways. An 8 year old client described her dilemma trying to decide whether to stop playing with her Barbie dolls. She enjoyed pretending and making up scenes with her dolls, but friends were beginning to question her maturity. Yet she wished her friends would participate because she noted, "It's more interesting when other people play the other parts and I don't control the whole thing." Variety, novelty, new relationships increase the value of this sort of creation and increase a person's behavior potential. Her friend's opinions counted and she struggled to integrate the conflict between her world and the community of peers in which she also had membership. Invented worlds can create increased behavior potential (Roberts, 1991). The inclusion of non-imaginary persons in a child's play creates increased potential as well.

Play and Judgment

Engaging in play practices increases a child's knowledge of possible versions of these practices. Also enacting these versions improves her overall competence in making judgments about the world. In his discussion of the significance ladder, Ossorio (2006) shows how the patterns involved in engaging in various social practices determines the significance parameter, what a person is

doing by doing that. Ossorio's (2006, p.187) description of a man moving his arm up and down becomes a man saving his country once an observer sees the complete pattern. Given that a social practice can be transformed during play in a variety of ways, children have opportunities to experience a variety of patterns within that practice. A child having the relevant person characteristics will improve their pattern recognition and their capacity to make interpersonal judgments through imaginative play.

Significantly, kidding can become teasing can become insulting can become bullying; what starts as play can become serious, hurtful, harmful. By participating in a variety of social practices and increasing that variety via imaginative play, children gain behavior potential by learning not only more about the practices themselves but become familiar with the nuances of patterns of action that clarify the significance of persons' actions. Choosing correctly in the context of particular practices is a matter of judgment. Imaginative play provides an arena for children to exercise their own situational judgments without the constraints of any particular expectations by other adults.

Much of what persons encounter with other persons call for situational judgments and not merely knowledge of a conventional way of behaving in a social practice. The loosening of constraints that accompanies a child's participation in a play social practice gives opportunities to learn these patterns and to operate within a greater range of human relationships. Within play, children rework the options and stages and can experience changes in the patterns of the practices and understand as well as experience that social practices have many ways to be carried out. Play gives persons the opportunity to learn the situational nature of relationships and experience making judgments accordingly but in a context (play) allowing for mistakes and restarts.

Experience in imaginative play can expand a child's judgment by increasing his sensitivity to the patterns of relationships. However, the expansive nature of play can lead to relationships that are imprudent, dangerous, and harmful to others. This is where the

limit-setting members of the culture step in and regulate the social practices being played out.

Willy picks up a stick and declares “en garde”. Gilly responds with another stick and the two pirates now battle for control of the ship. These children are learning to appreciate the significance of patterns of behavior. The stick now has the significance of a sword only because it is a particular object within a particular play social practice.

So then consider Willy’s parent yelling from the doorway “Put that stick down!”

Willy responds, “That’s my sword and I must defend myself!”

His parent says, “Put it down now, or I’ll send you guys to your room. You can put your eye out with those things!”

Willy complies, “Yes, mom.”

This interaction between a child developing her sense of self, being an agent in the world, and the constraints of the child’s culture helps develop her competence and judgment. A parent, operating as a regulating critic, steps in and disciplines her child, bringing to bear the reality constraints of the social practice with the purpose of improving the child’s judgment, and thus the choice she makes within the social practice. The fluidity of child’s play social practices which enhances creativity, experimentation, variety in a culture is also balanced by the cultural constraints enforced by those with the standing (status) to do so such as parents, teachers, coaches, etc.

A child’s judgment and competence is necessarily influenced by his play companions as his play becomes more social. Marquesan children tend to play nearly removed from adult intervention. The older children have the experience and position in the group to treat the newcomers or the younger children in ways such that they begin to learn the rules of the group, the social practices (Martini, 1994).

Experience in acting as different characters during imaginative play may also have the effect of improving perspective switching. Because a person’s characteristics account for how a particular person weighs reasons involved in choosing and thus her judgment, the fact that in imaginative play a child takes on different roles

(different characteristics and perspectives) gives her opportunity to weigh reasons in different ways. This constitutes experience in perspective switching as a child begins to develop the basis for understanding the connection between how another person chooses and what kind of person that person is. The discipline of the influencing person (paradigmatically a parent) increases the reasons for seeing one set of circumstances as significant vs. another or weighing circumstances in distinctive ways. Imaginative play has the quality of reworking the circumstances in ways that can improve a child's ability to make judgments.

Play, Self Regulation, and the Observer-Critic

Play theorists describe how free imaginative play contributes to a child's ability to self regulate. Ossorio (2006) has described the roles of the actor, the observer, and the critic (A-O-C) as being positions or statuses according to which a person acts. The ability to act, (to enact behavior), to observe one's own actions, to evaluate those actions and then modify the next actions accordingly is what persons do to self regulate. Limit-setting persons (parents, teachers, relatives, etc) help children learn to self regulate (see above). But what gives children the status to self regulate, the eligibility to self regulate, the O-C portion of the A-O-C set of statuses, as well as the ability to do so?

Some play theorists suggest that something called "private talk" (Berk, 2008) emerges in play. But the theorists do not distinguish this private talk during play from that during other social practices. Nothing obvious stops children from developing "private talk" within non-play social practices such as learning math, building an engine, and planting a garden.

So what distinguishes a play social practice in this regard? What's different about imaginary and other forms of social play is that the parent is usually not a participant. The child takes on the role (when playing alone, with another child, or even with a parent participating in a non-parental role in play) of producer, actor,

director, stage manager etc. As the director, he is the observer-critic of the scenario he has imagined. He has the eligibility to do so, because of the non-problematic nature of play, and because the parent in her role of parent is not a part of the play practice (if she were, it would not be play).

To be eligible is to have a relationship to some set of circumstances such that this particular person is permitted to enact that relationship. To be eligible is equivalent to the idea that a person has a certain membership or job description that allows that person to act accordingly. A 15 year old may have all the skills and judgment necessary to drive a car, but she does not have the requisite eligibility until after her 16th birthday. Eligibility is not necessarily tied to competence. Eligibility like membership is generally granted by a person known as a status assigner (see below and Ossorio on accreditation and degradation ceremonies, 2006).

With this eligibility, a child has license to regulate the action taking place. It's the emergence of this observer-critic role in early imaginative play that contributes to the development of the competence to self regulate. Participation in play social practices gives a child the eligibility and experience to be the O-C, to be his own O-C and thereby begins the development of the A-O-C roles.

The following transcript, from a video clip of children (Sociodramatic play, 2008), illustrates these A-O-C roles during imaginative play:

(The scene appears to be a typical play area in a kindergarten, daycare, or nursery school. Three girls are standing in a corner with a play table and chairs and what looks like a toy stove.)

- C1: (young girl about 5 years old.) Ok, Molly. You're the little girl, Molly's the dog, and I'm the kitty and then we run away from you, ok, when you're in bed.
OK, where's your bed?
- C2: (points to where the bed will be)
- C1: OK, lay down.
- C2: (Lies down).

(C1 and C3, making animal sounds, proceed to crawl away from where C2 is “sleeping”)

C1/C3: meow, meow...bahh, bah, bah....

C2: (Arises from sleeping and begins to look for the kitty and dog.) Ki...tty?

C1: (crawling back toward C2 and hiding) No, you found her first and then you found me.

C2: I find doggy then kitty?

C1: Yep.

C2: Doggy?

C1: And you went right past me...I was so quiet.

C2: (finding Doggy,C3) Doggy! Kitty!

(As C1 scurries on her hands and knees back toward the original corner and C2 follows C1)

C1: Meowwww.

This illustrates how children become directors of their own behavior within play. As the play becomes connected to real people and involves relatively fewer imaginary ones, the constraints of other relationships must be incorporated. The children here are not only learning to see themselves from other perspectives but to act on relationships in different ways, to try out varying options in a particular social practice and are beginning to coordinate their actions in ways relating to the development of competence in switching communities (see below) . This regulation of the action in imaginative play contributes to the development of the critic’s role or status. Not only are these children trying on new eligibilities but some (notably C1 in the scene above) are taking on a special eligibility—the role of the critic, the director, the assigner of these roles.

Ossorio (2006) discusses the role of the critic. The critic speaks for Us, in a broad sense for the standards of the community, the culture, and refers to parents or others in the role of observer/critic in relation to the child’s actor. A child within a play practice takes on this observer/critic role as she develops stories that are variations on the culture. Any version of imaginative play can be described

in terms of the social practice(s) enacted and the contingencies of that practice. The child setting the scene relative to its within-play contingencies is acting as a regulating critic and speaks for Us relative to that play world. C1 has that status above.

Although one would usually site early adolescence as the time of the full blown emergence of the critic (just ask any parent of a middle school child), the basis for the development of the observer/critic occurs in imaginative play. Non-play practices can also have this aspect to it as the supervising parent, for example, allows a child to have some leeway within a social practice and allows that child to do it himself (cut the grass, tighten the oil filter, mix the dough, etc.). Such leeway generally is in areas of conventional relationships, rarely when judging situational patterns is called for.

Status, Status Assigning, Self Status Assigning, and Play

The Actor-Observer-Critic role can be described as a certain status the child has in relation to a set of circumstances. This could be to another person, to objects in a room, etc. To have a status is to have a relationship conforming to that particular position or set of relationships. Earlier papers on status assigning and development have focused on the parent's position as status assigner to the developing child. A child enters a world and is assigned a status, a place within a set of relationships and is treated as someone with those eligibilities (Kantor, 1977; Holmes-Lonergan, 2007).

Accreditation and degradation ceremonies (Ossorio, 2006) are social practices that lead to the gaining or loss of behavior potential, the increase or loss of relationships, the gaining or loss of place with respect to a set of circumstances, changes in status. A status assigner, eligible to participate in such ceremonies, has the status of assigning or reassigning statuses. We would say that a person, P1, as a status assigner of P2, has a particular influence on P2, that of altering P2's behavior potential, sets of relationships, place, and membership (eligibility) in a community. Conceptualizations in

Descriptive Psychology have focused on the adults, parents, teachers, coaches, therapists, and others as major status assigners.

But a two year old declaring, “Mine,” is assigning herself a status in relation to the toy she is claiming. Self status assigning is critical in that it allows a person, on the one hand, to maintain her status in the face of changing circumstances, in the face of others attempting to degrade her relative to others, yet, on the other, to enhance behavior potential by reassigning her status.

Two major tasks occur in development involving the assignment of place. One involves the impact of the community on the child and assigning the child psychological places relative to others. The second involves the child’s developing a certain resilience to maintain and/or enhance her status, her behavior potential, in the face of changing circumstances. Within imaginary play, a child can reassign these statuses (“I’m the king. It’s my kingdom”) and try out acting according to statuses that carry greater behavior potential than the ones the child, as a child with his statuses assigned within his family and community, has available.

Children playing imaginatively alter the status of persons, objects, etc. Persons cannot create objects out of thin air, but can create concepts and concepts about behaving in such circumstances and enact behaviors in relation to such circumstances (Ossorio, 2006). A child begins to do this as imitation turns into imaginative play. A child can act *as if* a pillow case is a sail and enact the relationships that imitate sailing.

The child’s changing the meaning of an object in play such as the pillow case is a way of changing the status of the pillow case relative to the other circumstances in the play practice. This transforming is the same operation that occurs when a person begins to assign herself different statuses within the context of a particular community. The young boy becomes the hider, the seeker, the World War I ace, the parent, the superhero. A child develops his stories and by doing so enacts the status of status assigner.

In the following transcript, two girls, Ava and Naomi, are playing and their mother is commenting on their play (*Imaginative play with*

Ava, 2008). Pay special attention to the last line. This is the status claim of a child with the eligibility during imaginative play to be a status assigner, indeed a self status assigner:

(*Ava*, about 7 years old, is swinging on a swing next to a tree house. *Naomi*, about 4 years old, is in the tree house. Mommy is video taping the play)

Ava: And so this is like our house. And like you're just like an owner that came by...

Naomi: Hey, Mommy, you be the frog and I'll be the princess and *Ava* will be the 'raffe, ok Mommy?

Ava: No, *Naomi*, we can turn into any animal.

Mommy: OK

Naomi: I'm going to be magic.

Mommy: You're magic?

Naomi: Yes, I am.

Mommy: What kind of magic thing are you?

Naomi: I can be anything...I'm magic.

Mommy: Kind of like in the "Princess Rebecca" stories, "How I am a princess", right?

Ava: Pretend *Naomi* and I are in the house that we are living in.

Mommy: OK.

Ava: Now, I'm a horse... (*Ava* moves toward the tree house)

Mommy: Here's your magic castle.

Ava: (moving up into the tree house) No, it's just a house.

Ava counters her mother's attempt to assign to the tree house the status of magic castle. Her statement, "No, it's just a house", is a status assignment, not only relative to the tree house but to herself as

well. She has claimed the status assigning status in this production. Mommy is just the photographer, not the O-C within this version of imaginative play. Ava is not eligible to make this claim when picking up her clothes, doing her homework, crossing the street, etc. It's within imaginative play that children get their start as status assigners of others and of themselves.

Consider the following two examples from Piaget (1962, p.133-134): "J. at 2:1 was afraid when sitting on a new chair at the table. In the afternoon, she put her dolls in uncomfortable positions and said to them, 'It doesn't matter, it will be alright'. On the same day I knocked against J.'s hands with a rake and made her cry. I said how sorry I was and blamed my clumsiness. At first she didn't believe me, and went on being angry as though I had done it deliberately. Then she suddenly said half appeased, 'You're Jaqueline and I'm daddy. There (she hit my fingers). Now say "You've hurt me" (I said it). I'm sorry darling. I didn't do it on purpose. You know how clumsy I am.', etc".

In the above two examples, J. has assigned herself a different status in each instance. In the first, she assigns herself the eligibility of a parent relative to her doll and treats the new chair as something not to be feared. It's her self assignment of status that allows for this transformation. In the second instance, in relation to her father, she reassigns status and Piaget allows this reassignment. Taking on the adult role, a status assigning role, gives her a position of greater behavior potential, in resolving the fear in the first example and the hurt in the second.

A child relative to her father does not have the status without claiming this place in a play practice (and in this case she has a father who accommodates to her status assignment). A child, as part of imaginative play, creates different stories, different scenarios, and assigns statuses to others and to himself that can affect the range of relationships a child is eligible to act on, and maintain or increase behavior potential as a result.

Ossorio (1982/1998, p.160) writes, "...Persons act as all kinds of things usually some number of them simultaneously at any

given time. For example when Will talks to Jill about the doings of their son at school, he may be acting as (a) father, (b) husband, (c) taxpayer, (d) disciplinarian, (e) possible-angry-person. Thus it is persons who bring out most clearly the way in which our mastery of status creation, status assignment, and empirical identities are essential and fundamental for living as persons.” Opportunities to play, to be the author, director, and lead actor, are major ways that children develop this competence. Within the stories of imaginative play, these examples illustrate how a child will enact different eligibilities simultaneously. To distinguish between being Ava and a horse or Naomi and a giraffe is to have experience as “acting as all kinds of things” and doing so simultaneously.

One must have the competence and the status as a self status assigner to deal with other status assigners and their attempts to reassign eligibility particularly in the realm of person characteristics. Children encounter this frequently in the form of teasing and more seriously bullying. Learning to assert themselves (be a self status assigner), stand up for themselves, and resist such degradations, is critical in early social development.

Play, Self Status Assigning, and Communities

Piaget (1962) describes J's creation of a complete community in her play:

From about 5:6 onwards, J. spent her time organizing scenes dealing with families, education, weddings, etc. with her dolls, but also making houses, gardens, and often furniture. ... Her dolls continually walked about and held conversations but she also took care that the material constructions should be exact and true to life. Later it was a whole village, 'Ventichon' that gradually grew up. J's whole life was connected with this place and its inhabitants. Reproduction of reality was the main interest, but elements of compensation could be observed ('At Ventichon they drink a whole glass of

water’ and not just a little in the bottom of a glass), and also protective transpositions: the inhabitants had a special costume (a veil over the face to protect them from adult indiscretions) and certain passwords: ‘Ye tenn,’ when going into a house (they were kept out if they pronounced it badly)’, ‘to-to-to’ when going up stairs, etc. (p.137)

As Putman (1981) notes: “a Community is characterized by its Members, its Statuses, its Concepts, its Locutions, its Practices, and its World” (p.196) . J.’s design of her village serves very well as an illustration of Putman’s parameters of a community. From the members being the dolls that held conversations, to the subtle but significant changes in status involved in the above example including water drinking and veil wearing, to the locutions such as the special passwords that only true members of the community would know, to the world she created with its own name, Ventichon mimics the parameters of person communities. As the creator of this world, J. is the status assigner. She decides what it looks like, what the people do, and what counts as being a full fledged member.

The above example is a familiar one. We would expect kids to develop these imaginary places as naturally as their language, and be surprised only if their creations did not resemble the world around them. This is like being surprised that a child raised in a community speaking English spontaneously started to speak German. Imaginative play is with a community of interrelated characters and as such helps children develop the concept of community.

Putman (1981) points out that “among the concepts of a paradigm case community is the concept of Community, the use of which enables one to distinguish this community from others”(p.198). A person with this concept also has the concept of one’s membership or status within one community rather than another and the capability of making this distinction would be required to be a self status assigner.

Developing the eligibility of self status assigner and the concepts of community allows a child to be a member in more than one

community at the same time. J. acts as a member of Ventichon as well as of her family and does so at the same time. A child does not have to have the same eligibility, the same status, in two separate communities. He must only be able to act successfully on the status assigned and accepted within the relevant community.

A person is assigned statuses by others as a matter of interpersonal necessity (see the Dramaturgical Model above) and frequently these assignments clash with one's self assigned status. Persons learn the constraints, the practices, the locutions, etc. that allow them to operate within their own community (beginning in one's nuclear family), but "our world", the world that includes all other worlds within it changes as children grow, as circumstances change. Experience in imaginative play helps children develop the ability to reassign status to others and themselves. This contributes to the judgment competence to make the changes necessary to operate in changing circumstances and in new communities. Children can self assign status during imaginative play (My World), yet also operate successfully in the community in which others assign status (Our World).

To be a successful teenager is to be able to see oneself as having a status that includes eligibility to be a member both in the community of her peers and in that of her family of origin. Having eligibility in one world does not negate having eligibility in the other. In addition, being able to take on new statuses in a different community can enhance one's behavior potential. An adolescent client recently described how hanging out with an extroverted friend helped him experience different groups and gave him the status to reach out more and develop new relationships.

Through imaginary play, both alone and with others, a child can be said to be developing not only a repertoire of eligibilities, but also the ability to alter one's status relative to his circumstances. Persons need communities to survive and cannot change many of the circumstances they find themselves in but can change the community in ways that adapt to the circumstances. Seeing oneself as having the eligibility to do so gives a person reason to make the changes, even

if the competence to be completely successful is not fully developed. Growing up is not necessarily a matter of leaving home. Growing up is a matter of developing the ability, the concepts, and the eligibility to become community creators.

Imaginative Play and Interpersonal Resilience

The following maxim applies to children and development:

If a child is ineligible to enact a relationship which is called for, a behavior within Cyl(communitY 1), he/she will through play create a communityCyPyl(Play community) that allows him/her to enact that relationship (cf.Ossorio,1982/1998,maxim B7).

A child's imaginative play both reflects and enhances the social practices that she participates in with other members. Imaginary play has themes taken from other portions of a child's life and reconstructed in the scenarios of play. He can manipulate, transform, increase his own potential in the context of the practice rewritten for his play community and then take that status, that competence back to the real world social practice.

The more a child exercises self status assigning, the less likely situations of status disruption (Kantor, 1977), and uncertain status (Roberts, 1991) will lead to degradation, loss of behavior potential. A child has more distinctions available to her to reassign a new status with as much or more behavior potential. Secondly, practice as a self status assigner under changing circumstances would make a person more resilient as well. He would have the eligibility to reassign status and alter his eligibility when circumstances change.

Martini (1994) described Marquesan children becoming resilient as a result of their early experience playing with peers supervised minimally by adults. Older peers ran these mini communities which involved teasing, bullying, and putting people in their places. Adults did not bail out their children. Each child had to work his or her way into the statuses available and learn to maintain them. Their

later strong sensitivity to the needs of their larger community, she believes, stems largely from this early developmental experience.

Putman's (1998) "Being, Becoming, and Belonging" clarifies issues in status, status change, status conflict, feeling states, and the Dramaturgical Model. The section on being and versions elucidates how people can seem to behave so differently under different circumstances. The issue is acting as a member of a certain community or having a certain membership or status within a set of circumstances. Child's play is the early developmental stage of the competence to switch statuses, to behave differently in different contexts, to behave differently without giving up one's identity.

Developmentally, in order to move away from one's primary community, to join other communities, see oneself as a member of other communities, and thus expand one's behavior potential, a person needs to be able to accept status assignments from others, to see oneself as part of a new community. A person may wish to start out as the lead cheerleader or the hero of the football team, but generally must have the status to accept a position of lesser behavior potential when first joining the squad (one might describe this status as "starting at the bottom to get to the top" or the status of "possible captain" "possible football hero").

A Changing World

Why is it that persons would develop in these ways and what is the significance of that? The world changes. Circumstances are not stagnant. So relationships and therefore, statuses are changing and for a person to behave competently he must be able to assign and reassign statuses to others and to himself. Imaginary play has as a fundamental aspect the fluidity of statuses. As a child moves toward more socialized play what is expected in a particular social practice will delimit the statuses involved, which are accepted and what it takes to act accordingly. Yes, that pawn could be a valuable statue, but if a player treats it that way during a chess game, he's failing to play chess, to act as a member of the school's chess club. Learning

the difference between acting as a chess player and acting as Indiana Jones is a significant distinction that a person must make.

Consider the following:

1. A person's overall status, relative to the circumstances she encounters, is maintained relative to these worlds via her competence in status assignment, and her eligibility to exercise those competencies.
2. A person's world (my world and our world) changes and persons behave differently under different circumstances.
3. The world makes sense and so do people (Ossorio, 2006).
4. Persons make sense out of changing situations, by reassigning statuses, (self and others) and reconstructing worlds.
5. Children playing imaginatively are developing the competence and the eligibilities to make sense out of changing situations and learning to choose scenarios, reassign statuses, and reconstruct their world when necessary.

Ossorio's summary statement of the dramaturgical model (2006) of persons is the following: "Behavior and human life is a matter of creating scenarios, assigning statuses, and living out the drama" (p. 294). The child enacting her imaginary play is exercising the competence necessary to participate in human life. Imaginative play demonstrates directly the earliest instances of "creating scenarios, assigning statuses, and living out the drama."

Worlds, World Reconstruction, Behavior Potential and Role Play Therapy

Children in imaginary play not only reflect the world they live in through the stories of their play but construct and reconstruct their own worlds. Bergner describes the concept of "world" as a kind of totality. "Our world", the whole world an individual sees himself living within, is everything that is actually or could possibly be the case, the total psychological environment within which an individual

conducts his or her life (Bergner, 2008). Bergner (also see Roberts, 1985) goes on to write that we can distinguish the real world from a person's world. "Of the raw stuff of experience and thought we make quite different things, and it is in this sense that there is a point to saying that each of us 'constructs' our realities or our worlds" (Bergner, 2008, p.17). Bergner goes on to reference Ossorio's point that a person cannot just construct any old world and get away with it. The child may be king of his Lego castle, but when it comes to bedtime he learns to follow the rules of his parents. Development is a synergistic dance between My World and Our World and play is the early expression of what later becomes creative thought, involving the competence to reassign one's place in the scheme of things, to reconstruct one's world, to alter one's status in the face of changing circumstances, to maintain and/or increase one's behavior potential.

A more formalized version of the use of imaginative play to help children reassign statuses and reconstruct their worlds is play therapy with children and more specifically role playing therapy with children. Role playing involves setting up scenarios within the play therapy setting and having these scenarios be versions of what the child is struggling with outside the play room. By trying on different statuses and acting as a self assigner of these statuses, a child in play therapy can experience increased behavior potential and then take that "act" on the road, into Our world.

There are various ways to set up such situations with kids including the use of the squiggle game adapted from Winnicott (1971). The game consists of asking a child to turn a squiggly line into a picture. I then ask him to make up a story from the picture, a story that is make-believe. I may have the child tell multiple stories and we may discuss each story, give it a title, and even state what lesson someone could learn from such a story.

Later in therapy, we will play the squiggle game mutually as in Gardner's (1971) mutual story telling technique. But instead of merely telling and retelling stories, I actually ask my young client to act out the story with me. Initially, I give all the status assigning

to the child and ask her to choose which character in the story she would like to be and which one I should be. We then will improvise a play that follows more or less the story line. Later I will begin to set up a situation in which I ask the child to play a particular part. For example, if my client is struggling with night fears and has had me be the monster, I'll ask her to be the monster. This gives her the greater behavior potential (in the initial stages) and I can model taking charge of the fear. I will encourage her to take charge of her fear by the putting the monster (the therapist acting *as if*) in its place.

A young boy I saw years ago was in therapy because he had become the “man of the house”. His parents had divorced, his father was essentially absent, and he was told by his mother that he would now be the man in the house. He was nine years old. Not surprisingly, he became oppositional, defiant and a behavior problem in school and at home (at bedtime, he was still “king”). No one tells the man what to do. The evolution of the squiggle game and role playing led to my playing cops and robbers with him. Although he started out being the robbers, I eventually enlisted him as a fellow cop and together we went after the robbers. Within the play, we simulated relationships of cooperation and help, of my needing him to save me, and his needing me to save him. He no longer had to carry the burden of, the status of, man of the house, and learned he could count on others. Meanwhile his single parent mom, working in her own therapy, was learning to take charge and earned back the status of “woman of the house”. His oppositional behavior diminished both at school and at home.

Summary

The significance of children's imaginative play in cognitive and social development has been presented from the perspective of Descriptive Psychology. The emergence of the observer-critic role can be observed during imaginative play as children create, produce, direct, and act in their own scenarios, their own dramas. They learn to self regulate vis-à-vis their own imaginary characters, and later

move to play with other children and still later to games with rules. The fluidity of imaginative play, the creation and recreation of social practices and options within those as well as the opportunity to switch roles and act according to reasons of another, contributes to the development of judgment. A child's creations of such play also develop competence and eligibility to be not only status assigners but self status assigners. The interplay between children playing and the world of parents, teachers, coaches, other status assigners who bring to bear on the children constraints of the community enhances the distinction between the ideas of self and others, My world and Our world. Children not only gain experience in self status assigning during play, but also develop the concept of community and the eligibility to be members in more than one community simultaneously. The world of imaginative play reflects Ossorio's Dramaturgical Model of persons. Children, when playing, create scenarios, assign statuses, and live out the drama.

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Worlds of Uncertain Status

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Abstract

The concept of persons as world creators is presented, and reality constraints on real world creation are discussed and illustrated using examples from Miguel de Cervantes' masterpiece, *The Ingenious Gentleman Don Quixote of La Mancha*. Dreams and fiction are treated as mediums in which we have freedom from reality constraints, allowing us to explore behavioral possibilities that may change our worlds. A famous dream from *Don Quixote* is analyzed to reveal the dreamer's new way of treating the world. The novel itself is analyzed to show the alternative behavioral patterns that Cervantes explored. The significance of these patterns in his life is examined, and the world-changing nature of *Don Quixote* is discussed.

"Far away, alone in the open Manchegan plain, the lanky figure of Don Quixote bends like an interrogation mark..." (Ortega y Gasset, 1961, p. 101)

Imagine a world in which competent physicians prescribe treatment based on the balance of the four humors; national leaders make decisions in accordance with the position of the planets; royalty and commoners alike make use of the mentally ill for entertainment; and writers earn the respect of the literary community only through works of poetry and drama.

What kind of world is this? Although it may seem like a fictional world, it is the real world in the time of the late Renaissance. The behavioral possibilities that are listed reflect

some of the accepted political, social, and cultural realities of the times, and people acted accordingly.

Consider a world in which children survive by being petty thieves and clever pick-pockets; adults gain respectable places by adapting to the ways of a corrupt world; and priests try to save sinners from eternal places in Hell.

Consider a world in which tender-hearted shepherds express their deep longings and anguish in verse; young women are lovely beyond compare but disdainful of their suitors; and goats and sheep graze peacefully in the meadows.

Consider a world in which fire-breathing dragons have claws of gold; knights cut down their opponents with a single blow of their swords; and beautiful damsels ride on palfreys to rendezvous with their lovers.

What kind of worlds are these? While they have elements of the real world, these are fictional worlds that were popular with readers in the late Renaissance. The first is the world of the picaresque novel, the second is the world of the pastoral romance, and the third is the world of the chivalric novel. Each of these worlds is self-contained, and we easily recognize behavioral possibilities that are fitting in one and not the other.

Finally, visualize a world in which men are not trusted, even though they have kept their word; women, once noticed for their beauty, lose their loveliness due to unending grief; and people in need ask for money.

What kind of world is this? It is a world described by Don Quixote after he emerges from an underground cave. Don Quixote is sure that what he has seen in the “underworld” is real, but we (and Sancho) treat it as a dream.

All of the worlds mentioned above – the real world and the fictional worlds, the underworld and the dream world – are *created* by people. The idea that we are the originators of dreams and the authors of fiction is generally non-problematic, but the idea that we are the creators of the real world is alien to most people.

I will start by using some of the ideas of Peter G. Ossorio to explain how people are creators of the real world. Then I will use examples from Miguel de Cervantes' *The Ingenious Gentleman Don Quixote of La Mancha* to illustrate some of the practical constraints on successful world creation.

A word of caution is in order for readers familiar with the musical *Man of La Mancha*. However delightful the musical is in its own right, it is not noteworthy for its depth of understanding of either Cervantes or his work. In fact Dale Wasserman, the playwright who wrote *Man of La Mancha*, claims that he has "never even read the complete *Don Quixote*" (2003, p. 93). As we will see, Cervantes' Don Quixote is a character of far different significance than the musical dreamer.

Real World Creators

"Surely you don't mean that we create the mountains and the trees and the birds..."

This is a common misunderstanding of the idea that we are creators of the real world. It sounds as if we are claiming a Godlike status for people, and saying that people make "the great sea monsters and every living creature that moves...and every creeping thing that creeps upon the earth" (Genesis 1:21-26). But of course people do not make the mountains or the monsters in this way.

"Surely you don't mean that we were here first..."

This is another common misunderstanding of the idea of people as world creators. It sounds as if we must be claiming a reverse order of things, and saying that the actual progression of events through time was first people, then the world. But of course historically the world was here first.

"So what do we create?"

What we create is the real world being what it is. (cf. Ossorio, 2006a, p. 136). Because things have reality only insofar as they enter into our behavioral patterns, we create what things are by the places

we give them in our behavior. What something is depends on what we successfully treat it as being.

“But we don’t have anything to do with mountains being mountains, monsters being monsters, or the world being the world. They are completely independent of us, and it doesn’t matter how we treat them.”

This misunderstanding is what makes the concept of persons as world creators foreign to us. We are accustomed to a world view in which we are merely spectators of the world. In the Spectator view, the world was here before we were; it will be here after we’re gone; and we are completely non-essential to it in the little time that we are here.

To understand the contrasting World Creator view, consider the paradigm of the pawn (Ossorio, 1981). Pawns are not objects that existed in the world before people got here and that people came along and labeled. Instead, pawns exist because people created chess, a form of behavior and a conceptual system in which pawns are distinguished from rooks, knights, etc. Without the game of chess, nothing could be a pawn. Thus, pawns (logically, categorically) depend on people. They would not exist without chess, which in turn would not exist without real people who actually play chess.

Anything in the world can be assimilated to the paradigm of the pawn by identifying a behavioral pattern in which the particular object, process, event, etc. has a place. For example, Ossorio (1978) comments on how atoms would not exist without people who play the game of physics:

Keep in mind that physics is a game people play—physics consists of there being people who have distinctive social practices, distinctive ways of talking, and distinctive ways of acting. Were there not those people and those ways of talking and those ways of acting, what would be the basis for saying there’s such a thing as an atom? What would we understand by “atom”? (p. 273)

As these examples show, the way that we create the real world is by creating and enacting behavioral patterns. These patterns vary in size. We have compact units like social practices, mid-size units like institutions (organized sets of social practices), and life-size units like ways of life. A way of life is a dramaturgical pattern that encompasses the entire life of a person.

Corresponding to each behavioral pattern is a built-in world. The built-in world “consists primarily of a structure of statuses which defines *what* things are, not in the sense of a taxonomy but as *dramatis personae*...” (Ossorio, 1982/1998, p. 123). Thus, the *dramatis personae* of geology include rocks, fossils, tectonic plates, mountains, etc.; the players in the drama of chivalry include knights, armor, ladies, squires, horses, monsters, etc.; and the players in all our known ways of life include women, men, houses, gardens, etc.

We can understand the real world as an all-inclusive dramatic structure that has a place for everything there is. All of the smaller, pattern-specific worlds fit into the all-encompassing real world.

Only secondarily does the real world consist of the historical particulars that we encounter. This is not to say that the historical particulars don’t matter. Recall: “For want of a nail, the kingdom was lost.” The nail mattered because of the particular part it needed to play in saving the kingdom. Without the nail, it was not possible to carry off the corresponding drama.

The dramaturgical structure of the real world is not fixed. Instead it changes as we invent new behavioral patterns, modify existing ones, and retire old ones. As an example, consider humorism, a conceptual system and a form of medical practice in which four humors are distinguished – blood, black bile, yellow bile, and phlegm. In this system, blood is the element that is most likely to upset the humoral equilibrium, and hence bloodletting is used to try to restore the balance of humors in the body. This was the accepted place of blood and the accepted way of treating illness for more than 2000 years, until 1628 when William Harvey proposed that blood is something that circulates in the body.

When a new way of treating something is introduced, it does not necessarily change the structure of the real world. New patterns of behavior have to be accepted by the community to become part of the real world. Until a new pattern is accepted, the status of the corresponding world is uncertain.

Sometimes acceptance occurs relatively quickly, as in the case of gunpowder. After gunpowder was introduced to Europe in the fourteenth century, politicians and military leaders quickly adopted it for use in firearms and explosives. Almost overnight, medieval knights and the chivalric conduct of war became forever obsolete.

More often people are reluctant to give up their old ways, and acceptance occurs slowly. Nuland (2007) notes that it took “almost three centuries before clinical physicians...could bring themselves to forsake therapies based on the last vestiges of the theory of humors”. As new therapies replaced the old ones, the place of blood in medical practice was changed, and *ex post facto*, what blood is now is what it was all along.

It is not only scientific inventions that call for reformulation of the real world. Entrepreneurs, artists, writers, philosophers, theologians, et al., all create new forms of behavior that transform what things are. The way we observe Christmas is a mundane example. When Dickens published *A Christmas Carol* in 1843, he introduced a new status to the real world, i.e., Scrooge. Historians believe that after this, Christmas began to change into the elaborate celebration that we know today because no one wanted to be cast as a Scrooge, i.e., someone who did not know how to keep Christmas well.

There is no guarantee that the changes we make are improvements. While it is comforting to think that “the universe is unfolding as it should”, that notion is reminiscent of the Spectator view. If we create and accept social practices that are base, shallow, etc., the real world changes in that direction. If we create and accept practices that are kind, humanizing, etc., then that is the direction of change of the real world.

Reality Constraints

People sometimes take it that if we create *what* things are, then we must be able to make the world into whatever we want. “The sky’s the limit.” In fact there are a number of practical constraints on successful world creation, and I will use examples from *Don Quixote* to illustrate a few of these.

Alonso Quixada (“there is a certain amount of disagreement” about his name), a poor gentleman in early seventeenth century Spain, got the idea that he could win “eternal renown and everlasting fame” by becoming a knight errant and doing everything that knights errant do. Given the preceding discussion about how we create the real world by enacting dramaturgical patterns, it might seem that Alonso could restore the institution of knight errantry to the world in this way. What keeps him from being successful?

Who I Am

One of the constraints on world creation is *who I am*. We each have a unique part to play in the all-encompassing, non-repeatable drama of the Real World. Normatively we play that part without raising questions or having doubts about it. The things that we do are simply expressions of who we are.

At various points in life, though, we may raise questions about “Why this part?” and get carried away by ideas about the part that we would like to play. In this case, we may end up playing “a part which is, in its turn, the playing of a part” (Ortega y Gasset, 1961, p. 154). In other words, we “put on an Act”.

Notice that I *am* being myself in putting on an Act. In fact, we may admire the artistry and skill of a person putting on an Act even while we see the phoniness of the Act itself. For example, at the end of Alonso’s first sally as Don Quixote, a neighbor finds him so badly bruised and beaten that he cannot stand. The neighbor recognizes him: “Señor Quijana!” and appeals to him to drop the Act: “Your grace is an honorable gentleman.” Señor replies: “I know who I

am...and I know I can be the Twelve Peers of France...and even all the nine paragons of Fame, for my deeds will surpass all those they performed, together or singly.” (p. 43) We respect his perseverance in the face of defeat, even though we know that he is insisting on something that is completely phony. He cannot be anyone other than himself.

At the end of the novel, we weep when he accepts this. As captured in the beautiful lyrics of W. H. Auden (quoted in Wasserman, 2003, p. 94), his words to Sancho are:

*Humor me no longer, Sancho;
Faithful squire, all that is past;
Do not look for this year's bird
In the nest of last;
Don Quixote de la Mancha
Was a phantom of my brain;
I, Quijano, your Alonso,
Am myself again...*

Why does Alonso put on an Act? By nature he is a quiet and plain man, gentle in his treatment of others and fond of reading. Unfortunately what comes naturally to him will never earn him the fame and glory he craves, only “the profound abyss of oblivion” (p. 671). He does not want to be one of those people “whose names were never remembered by Fame or eternalized in her memory, but one who in spite of envy herself, and in defiance of all the magi of Persia, Brahmins of India, and gymnosophists of Ethiopia, will have his name inscribed in the temple of immortality...” (p. 409). He puts on a Knight Act because he envisions it as a way to get what he wants.

What does he succeed at doing? He creates a world that has a place for a gentle man with a Knight Act, because that is who he is being.

Mundane Particulars

Another practical constraint on world creation is whether or not there are particular historical individuals available and willing to be cast for the parts required to bring off a dramaturgical pattern. You may have what it takes to be a first baseman, but you can't be a first baseman all by yourself. You need at least nine individual players to make a team, and you need a bat, a ball, four bases, and so forth. The historical particulars may be secondary, but they are indispensable for a real game.

They are also indispensable for world creation. The Paradigm Case of world creation involves "casting" particular individuals to play the parts called for in the drama, and then treating those individuals accordingly. If key players are missing or are not able to play their parts, then it is not possible to carry off the drama.

Alonso does a good job of casting when he offers Sancho Panza a position as his Squire. The part of Squire is close to Sancho's natural inclinations, so it is a position in which he can be himself. When questioned about why he serves Don Quixote, Sancho says: "I can't help it; I have to follow him: we're from the same village, I've eaten his bread, I love him dearly, he's a grateful man, he gave me his donkeys, and more than anything else, I'm faithful..." (p. 678)

Unlike most of the characters in the novel, Sancho usually relates to Alonso not as Don Quixote, but rather *as himself*, the gentleman from his village whom he has known all his life. This makes their dialogues an endless delight and saves Alonso from being a total phony. For example, at the end of the second sally when Alonso is being carried back to his village in a humiliating cart/cage, he swears that he must be enchanted to allow such a thing to happen to him. Sancho deftly sidesteps the Enchanted Knight Act and replies: "Even so, for your greater ease and satisfaction, it would be a good idea for your grace to try to get out of this prison, and I'll do everything I can to help get your grace out and back on your good Rocinante, who also seems enchanted, he's so melancholy and sad; and when we've

done that, we'll try our luck again and search for more adventures..." (p. 422).

In one of their "just between you and me" talks, Alonso confesses that Aldonza, a peasant girl from a nearby village, is his lady Dulcinea of Toboso. For twelve years Alonso has felt a shy tenderness towards her. Now he wants Sancho to take a love letter to her from him signed, "Thine until death, The Knight of the Sorrowful Face". Sancho clumsily blurts out: "... Praise our Maker, she's a fine girl in every way, sturdy as a horse, and just the one to pull any knight errant or about to be errant, who has her for his lady, right out of any mud hole he's fallen into! Damn, but she's strong!... And the best thing about her is that she's not a prude. In fact, she's something of a trollop: she jokes with everybody and laughs and makes fun of everything" (p. 200). Given who she is and what comes naturally to her, Aldonza is a complete and total failure as The Lady in Alonso's Knight Act.

In addition to a Squire and a Lady, the *dramatis personae* of knight errantry include castles, giants, magic helmets, etc. Some of the best known, and funniest, scenes in *Don Quixote* hinge on how Alonso fills the parts: inns for castles, windmills for giants, wineskins for giants, a herd of sheep as an army, a barber's basin as a magic helmet, etc. With status assignments like these, he creates a parody of the world of knight errantry.

Real World Context

Another practical constraint on world creation is the real world context of my behavior. For world creation to be successful, I need to have a wider context that enables and supports the behavior pattern I am enacting.

Unfortunately, when Alonso sallies forth as Don Quixote, the institution of chivalry has not been viable for more than 200 years. There is no place in the real world of seventeenth century Spain for a knight errant. In the absence of any kind of cultural support for knight errantry, how is Alonso's behavior treated?

Sometimes it is treated as provocation: when he tries to extort validation from a traveling merchant for the beauty of his lady Dulcinea of Toboso, he gets brutally beaten. Sometimes his behavior is treated as dangerous: when he charges on Rocinante with his lance lowered, a friar takes off galloping across the fields. Sometimes his behavior is treated as wrongdoing: when he frees a group of galley slaves, the Holy Brotherhood issues a warrant for his arrest. And so on. In no case does it count as the behavior of a knight errant, and so in no case does he create the world of a knight errant.

The context is changed slightly when Alonso makes his third, and final, sally as Don Quixote. The First Part of *Don Quixote* has been published, and wherever Don Quixote goes in the world, people recognize him. He is famous, and he has a place in the real world – not the place he tried to claim as a knight errant – but instead as a madman. Members of the larger community use him mercilessly for entertainment, and with appalling cruelty, pretend to treat him as a knight.

Alonso never has a place in the real world as a real knight, but it is worth noting how his behavior counts in the two-person community with Sancho. After a successful swordfight, Alonso asks Sancho, “Have you ever seen a more valiant knight than I anywhere on the face of the earth?” Sancho replies: “I’ll wager that in all my days I’ve never served a bolder master than your grace” (p. 71). Between Alonso and Sancho, it is I and Thou.

It is also worth noting how Alonso’s behavior counts in the larger scheme of things. “The pathetic, poignant, divine element that radiates from Don Quixote” (Nabokov, 1983, p. 42) has made him more famous than even the Twelve Peers of France, which is what he really wanted.

Freedom

Alonso’s attempt to restore the institution of knight errantry to the real world illustrates not only our constraints but also our freedom. In creating the real world, we are limited to what we can

get away with by way of behavior, but we are not compelled to recognize these limitations.

- There is no rule that says a leopard has to stop trying to change her spots after three tries.
- There is no law that says a theatre company cannot put on *King Lear* without any of the supporting actors.
- There is no regulation that prohibits us from sounding clarion calls from the highest hills, even if only the chipmunks hear us.

We may, like Alonso, treat the impossible as possible.

Dream Creators

In our dreams, we are not subject to the same practical constraints that limit us in the real world. If a dream scenario requires person characteristics that we do not have, we can simply give them to ourselves. If a dream performance calls for a cast of characters unavailable to us in real life, we can easily muster them in our sleep. If a dream pattern requires a context of support that does not exist for us in the real world, we can create it on demand in the night. This freedom from reality constraints allows us to envision and experiment with new behavioral patterns, ones that we might not consider otherwise.

When we wake up, our dreams may not seem to make sense, especially if we are focused on the implementation portrayed in a dream. Because we are not trying to carry off a behavioral pattern in the real world, we can be capricious and arbitrary in our casting of characters, in our portrayal of circumstances, in our enactment of performances, etc. when we are dreaming.

To understand a dream, we need to recover the pattern that we had in mind in producing it. To do this, two rules of thumb are helpful:

- Drop the details and see what pattern remains.
- Don't make anything up.

Once we have seen “the pattern that remains”, then we can look at how the pattern applies to the specifics of our real world situation. We may not accept an idea that we have portrayed in a dream, just as the community may not accept an innovation that is proposed by a community member. (See Roberts (1985, 1998) for more in depth discussions of dreams and dream interpretation.)

To illustrate this approach to understanding dreams, I will analyze the dream that Alonso had in the “underworld”, i.e., in the underground Cave of Montesinos. In the dream, an old man named Montesinos leads Don Quixote into a crystal palace where he shows him a knight lying on a sepulcher, a hairy hand covering his heart. Montesinos says that the knight is his friend Durandarte, who died in his arms at Roncesvalles. After his friend died, Montesinos fulfilled his last request and cut out his heart, sprinkled a little salt on it, and carried it to the beautiful Belerma, Durandarte’s lady. They have all been enchanted since then.

When Durandarte, who is not dead in the dream, reproaches Montesinos for *not* fulfilling his last request, Montesinos tries in vain to reassure him. Nothing Montesinos says or does makes any difference, which causes him endless sorrow. A procession of women mourners appears with the lady Belerma in the rear, carrying the dried and lightly salted heart of Durandarte. Once beautiful, the lady Belerma has become rather ugly from grief. Her grief is continuously renewed by carrying Durandarte’s shriveled heart, which she has been doing four times a week for more than 500 years.

When Montesinos speaks of the beauty of Belerma in comparison to the beauty of Dulcinea, Don Quixote reproaches him for the comparison. Montesinos apologizes and Don Quixote accepts the apology. Then Don Quixote sees three peasant girls jumping in the fields like nanny goats, and he recognizes one of them as Dulcinea. One of the girls approaches him and asks for money for Dulcinea. After consulting with Montesinos, Don Quixote gives her all the money he has, four *reales* that he is carrying so that he can give alms to the poor. The dream ends with the peasant girl leaping into the air instead of curtsying.

All of Chapter 23 in the Second Part of *Don Quixote* is devoted to the dream, so I have already dropped most of the details (and alas, most of the humor, too). If we drop the remaining details, what pattern do we see?

The first part of the dream portrays a knight (Durandarte) who is oblivious to his circumstances and to the positions that he is putting people in. The second part portrays a knight (Don Quixote) who is responsive to the situation and to the people around him. We can understand the first part as a problem formulation: “The same things will keep happening over and over and over if I do not listen and see and respond to what’s going on around me.” The second part can be understood as a possible solution, captured in the prescription, “Respond to what’s out there.”

How does this pattern apply to the specifics of Alonso’s world? In the First Part of *Don Quixote*, Alonso has repeatedly charged into adventures for adventure’s sake without a thought to those around him. He has been as oblivious to the pleadings of Sancho as Durandarte is to the pleadings of Montesinos. For example, on a dark night when he and Sancho hear a terrifying pounding sound, Sancho begs Alonso not to leave him alone, “in a desolate place far from all other human beings. By the One God, Señor, you must not wrong me so...” (p. 143). Alonso is not moved by his squire’s “tears, advice, and pleas”, so Sancho resorts to sneakily tying Rocinante’s forelegs together so that his master cannot go anywhere until morning.

In the Second Part of *Don Quixote*, when Sancho is terrified by a man with a huge, hideous nose, Alonso responds very differently. He legitimizes Sancho’s fear about the nose: “It is so large... that if I were not who I am, I would be terrified, too, and so come, I shall help you climb the tree” (p. 545). He delays his charge on his opponent until Sancho has reached safety. Alonso’s response here is consistent with the new way of treating the world portrayed in the second part of the dream, as are many other scenes in the Second Part of the novel.

This is an example of the applicability of a fictional dream to a fictional world rather than the applicability of a real dream to a real

world. The fact that the Cave of Montesinos dream illustrates the principles of dream interpretation so well is indicative of the genius of Cervantes, who awake, authored a dream for his hero that is fascinating, funny, and psychologically perfect. (Cervantes believed that dreams may reveal the concerns of the dreamer, as he explains and illustrates in Chapter VI of *Journey to Parnassus*.)

Fiction Creators

Fiction is another medium that allows us to experiment with different ways of treating the world. While a person's reality constraints are most relaxed in dreams, fiction also offers a great deal of freedom from constraint. Authors are free to create whatever characters and circumstances are needed to portray the patterns that they have in mind, as long as they write something coherent and intelligible for their readers.

I will now look at Cervantes' *Don Quixote* and show how the alternative behavioral patterns that he explores in the novel are related to patterns that he was enacting in his life. In doing this, I am approaching the work as a Descriptive psychologist, not as a literary critic. *Don Quixote* has long been recognized as a masterpiece, and no disrespect is intended by approaching it this way. On the contrary, my hope is that the approach offers an extra dimension of appreciation.

Nabokov (1983) believes that "the only thing that really matters in this business of literature [is] the mysterious thrill of art, the impact of aesthetic bliss" (p. 76). For a Descriptive psychologist, pattern bliss – the thrill of recognizing a pattern and its real world applicability – also counts.

What are the top-level patterns in *The Ingenious Gentleman Don Quixote of La Mancha*? How do they apply to Cervantes' life? Cervantes wrote the novel in two parts, publishing the First Part when he was 58 years old and the Second Part when he was 68. I will treat each part separately and look at each part in the context of Cervantes' life at the time it was published. This will make it

possible to see the resolution that Cervantes achieved in the final years of his life.

Cervantes' Life

Imagine that you are in a tavern in seventeenth century Valladolid, enjoying a glass of wine. A frayed but engaging gentleman asks if he can join you. You try not to look at his ugly, maimed left hand while he devours your tapas. He begins to speak about himself. . .

He has worked in Rome, he says, a city that “transcends its fame as divine” (Cervantes, 1617/1989, p. 311), served as a soldier in the Spanish Army, and been enslaved by Barbary pirates. His left hand is beautiful because it was injured by a blunderbuss shot in the naval battle of Lepanto, “the greatest event ever seen in past or present times, or that the future can ever hope to see” (p. 455).

He surpasses many in imagination (“Yo soy aquel que en la invención excede a muchos.” (Cervantes, 1614/1883, p. 106)), and has aspired all his life to win a place of honor among the poets. After he returned to Madrid at the age 33, he was successful for awhile as a playwright and “wrote some twenty or thirty plays, which were performed without causing cucumbers, or any other missiles, to be thrown at them” (Cervantes, 1615/1996, p. 4).

You have your doubts about the twenty or thirty plays, but you are sure that he hasn't eaten all day. You order more tapas for him.

At the same time that he was starting his career in the theatre, there was an 18 year old, Lope de Vega, “one of nature's prodigies” (Cervantes, 1615/1996, p. 4). Although Lope started out writing traditional theatre, he soon began to experiment, to do something different. He broke the accepted rules of drama and wrote plays solely to entertain the public. The public loved his innovations so there was no uncertainty about the status of Lope's *comedia nueva*. In a very short time he radically changed the theatrical world.

There were only eight acting companies licensed by royal decree to perform plays in public at that time (Smith, 1996, p. 147), and they

became “the empire of the mighty Lope”. “The actors all became his slaves and were subject to his rule. He filled the world with his own pleasing and well-made plays” (Cervantes, 1615/1996, pp. 4-5).

You hear the bitterness and the mocking praise, and you know that he had no place in that world.

He says that “with other things to occupy my time, I put aside my pen and wrote no more plays” (Cervantes, 1615/1996, p. 4). During the next ten years he traveled the mountains and plains of Andalusia, first as a provisioner for the Spanish Armada and later as a tax collector. At age 50, he was imprisoned in Seville for irregularities in his accounts.

You pour him another glass of wine. You know all too well the staggering levels that taxes have reached over the past ten years in Spain (Kamen, 1991, p. 167), and how despised provisioners and tax collectors are. Why does Lope wear the crown in Madrid, while this poor gentleman is shut out as a playwright, spends his days rambling on a nag through the south of Spain, is shunned by everyone he meets, and finally is thrown into prison by the government he patriotically served?

But he is no longer speaking of his life. He is speaking of his disdain for *comedia nueva*. “Drama, according to Marcus Tullius Cicero, should be a mirror of human life, an example of customs, and an image of truth, but plays that are produced these days are mirrors of nonsense, examples of foolishness, and images of lewdness” (p. 416). Will there never again be plays that follow the classical rules? Is that world gone forever?

The First Part of *Don Quixote*

*“He felt himself at the end, poor and alone,
unaware of the music he was hiding;
plunging deep in a dream of his own,
he came on Sancho and Don Quixote, riding.”
(Borges, 2000, p. 179)*

In the First Part of *Don Quixote*, Cervantes portrays two ways of being in the world, one embodied in Don Quixote and one in Sancho. If we drop the details of Don Quixote's adventures, the top-level pattern that remains is "a person in a position of higher social status insists on following an obsolete pattern in order to win fame and renown". If we drop the details of Sancho's adventures, the top-level pattern is "a person in a position of lower social status does what comes naturally and brings delight to people".

How do these patterns apply to Cervantes' real life? After he was jailed for malfeasance, he knew that he had no future even as a tax collector. He must have been asking himself questions on the order of "What do I do now?" "Where do I go from here?"

We can understand the Don Quixote pattern as one answer. As a young man, Cervantes had accepted the values of Renaissance humanism, and it was a given for him that artistic works should follow classical patterns. He was also enormously ambitious. We can almost hear him say: "I know who I am, and I know I can be Heliodorus and Homer and even Virgil, for my works will surpass all those they created, together or singly." He passionately wanted to achieve a place as one of the best poet/playwrights of his day by imitating and transcending classical models.

But then Lope de Vega changed the world out from under him. Just as the acceptance of gunpowder made medieval knights obsolete, the acceptance of Lope's *comedia nueva* made playwrights like Cervantes old fashioned. Cervantes was free to try to restore neoclassical drama to the world; to create works in imitation of "the two princes of Greek and Latin poetry" (p. 414); and to fight anyone who would not agree that drama should both delight *and* teach. In the same way, Alonso was free to try to restore the order of knights errant to the world; to create deeds in imitation of Amadís of Gaul or "Roland, or Roldán, or Orlando, or Rotolando (for he had all those names)" (p. 194); and to fight anyone who would not confess that "in the entire world there is no damsel more beauteous than the empress of La Mancha, the peerless Dulcinea of Toboso" (p. 39). This was one option.

A second answer to the question of “What do I do now?” is portrayed in the Sancho pattern: “Do what comes naturally.” There are many examples throughout the book of Sancho affirming what is natural for him. When Alonso wants Sancho to quit tormenting him with his endless strings of proverbs, Sancho responds: “Your grace complains about very small things. Why the devil does it trouble you when I make use of my fortune, when I have no other, and no other wealth except proverbs and more proverbs? And right now four have come to mind that are a perfect fit, like pears in a wicker basket...” (p. 736). When Alonso commands him *not* to speak in the Sierra Morena, Sancho soon counters: “Your grace should give me your blessing and let me leave, because now I want to go back to my house and my wife and children, for with them, at least, I’ll talk and speak all I want; your grace wanting me to go with you through these deserted places by day and by night without talking whenever I feel like it is burying me alive...” (p. 190).

What was natural for Cervantes was narrative writing. Unfortunately, prose fiction was not held in high esteem in early seventeenth century Spain, and writers could not earn respect or status in the literary community through this genre. Nonetheless, as Cervantes affirms in the Prologue to his *Exemplary Stories*, his natural inclination led him to novellas (1613/1998, p. 5).

Literary critics believe that “*Don Quixote* was originally intended by Cervantes to be a long short story, providing amusement for an hour or two. The first sally, the one from which Sancho is still absent, is obviously conceived as a separate novella” (Nabokov, 1983, p. 28). But then (dreamlike) Cervantes begot Sancho, and began to write whatever came to his mind just as Sancho speaks whatever comes to his mind.

Like many Spaniards of his time, Cervantes had grown up on romances of chivalry. They were one of the few means of escape from the social disintegration of the times, and “every cultured person had them in his library” (Kamen, 1991, p. 113). Cervantes was unusually well-read in the genre, so it is not surprising that he drew on this background knowledge when he just let himself write.

Don Quixote objects to his approach: “The author of my history... without rhyme or reason, began to write, not caring how it turned out, just like Orbaneja, the painter of Úbeda, who, when asked what he was painting, replied: ‘Whatever comes out.’” (p. 478 and p. 923). Literary critics agree. As Nabokov (1983) succinctly puts it, “It is no use looking for any unity of structure in this book” (p. 169), or as Madariaga (1961) more gently expresses it, “The ‘story’ of *Don Quixote* has no plan other than the caprice of Rocinante” (p. 79).

Humor also came naturally to Cervantes, and he could appreciate and portray the humor in any situation. Imagine how liberating it must have been for him to conceive of Don Quixote. As an artist, he would have rejoiced at his new conception, and as a person, he would have delighted in seeing himself in light of his noble knight (just as readers for more than 400 years have enjoyed seeing themselves and/others in light of The Knight of the Sorrowful Face).

This is not to say that Cervantes gave up his earnest conviction that *good* plays should be performed again in the theatres, even if he saw it in light of Don Quixote. As Littmann (1983) explains in an elegant formulation of humor, to see a serious matter as humorous is to attain a nonserious view of it while nevertheless retaining the serious view “not as a competing view, but as a background ‘given’” (p. 189). While a person is “seeing-the-serious-as-nonserious”, new possibilities for involvement in the world are introduced because the serious matter “no longer assumes the same priority it did when it was appraised as serious” (p. 198). But a person can transition to seeing the serious exclusively as serious again, because the serious viewpoint has not been lost or invalidated.

We have now looked at the First Part of *Don Quixote* and seen how the patterns there fit with Cervantes’ real life. For the Don Quixote pattern:

- The higher level description is “a person in a position of higher social status insists on following an obsolete pattern in order to win fame and renown”.

- The fictional representation is “a hidalgo (Alonso) insists on imitating the medieval practices of knight errantry in order to win fame and renown”.
- The real world application is “a playwright (Cervantes) insists on emulating neoclassical models in order to win fame and renown”.

For the Sancho pattern:

- The higher level description is “a person in a position of lower social status does what comes naturally and brings delight to people”.
- The fictional representation is “a peasant (Sancho) says what comes naturally and brings delight to people”.
- The real world application is “an author (Cervantes) writes what comes naturally and brings delight to people”.

Notice that in the lower level descriptions, specific individuals have been cast for the parts specified in the dramaturgical pattern.

Cervantes' Life

“Is Cervantes making fun of something? And of what?...What was that poor tax-gatherer mocking from the depths of a dungeon?” (Ortega y Gasset, 1961, p. 101)

The First Part of *Don Quixote* was an instant success when it was published in 1605, and six editions were printed within the first year of its release. Because he was cheated out of royalties by the publisher, Cervantes did not benefit financially from the success. And while he became famous, he became famous as a comic narrative writer, which was even *lower* in status in seventeenth century Spain than a narrative writer.

He did get some satisfaction in relation to his archrival Lope de Vega, however. In the Prologue to the First Part, Cervantes clearly states that he “intends only to undermine the authority and wide acceptance that books of chivalry have in the world and among

the public” (p. 8). Readers of his day, however, would easily have recognized his many ironic allusions to Lope.

Cervantes makes his mockery of Lope explicit towards the end of the First Part. As Alonso is being carried home in the humiliating cage, a Canon from Toledo appears on the scene. With the help of the curate from Alonso’s village, the Canon performs a thorough degradation ceremony of Lope and his *comedia nueva*. This public degradation of Lope was carried “by Rocinante on his crupper” throughout all of Spain and much of Europe and into the New World.

Cervantes, still desperate financially and still hoping for a place of honor as a poet, decided to try his hand at plays again, even making some concessions to the ideas of *comedia nueva*. Not surprisingly, given Lope’s power in the theatrical world and Cervantes’ far-reaching degradation of him, Cervantes found that “the birds of yesteryear had flown the nest. I mean to say that no actor-manager wanted [my plays]” (Cervantes, 1615/1996, p. 5).

Booksellers, however, wanted to publish his writing. Given this opportunity, Cervantes worked with incredible intensity in the last decade of his life. After the success of the First Part of *Don Quixote*, he completed five more books before his death, in spite of failing health.

Exemplary Stories was the first to be published. It went through four editions in 10 months and established Cervantes’ place as the master of the Spanish short story. In the Prologue to his *Stories*, Cervantes affirms, “These are my very own, neither imitated nor stolen” (Cervantes, 1613/1998, p. 5). In the same year, he began to receive a small pension from a benefactor, the Count of Lemos, and he joined a Franciscan lay order, which gave him a real place in a community very different from the hostile and humiliating literary world.

Cervantes published his *Journey to Parnassus* next. It is a long burlesque poem (with cameo appearances by Sancho and Rocinante) written in imitation of an Italian poem. It was not successful, but it is intriguing psychologically. Cervantes narrates the poem as himself, and there are references to his failing health. Most notably, Apollo

confides to Cervantes that dizziness (*vaguidos de cabeza*) sometimes makes it impossible for him to write.

It is significant that with time running out, Cervantes chose to complete this poem rather than focusing on some of the other works that he hoped to finish before he died. In Chapter I, he tells us that he would not have “made the journey” except for the desire “to place a laurel wreath upon me” (“*una guirnalda de laurel ponerme*”) (Cervantes, 1614/1883, p. 2). But after he sets out, Mercury welcomes him into the service of the god Apollo, the father and inventor of poetry.

In Chapter IV of the poem, there is a scene where a hundred Spanish poets take seats of honor around Apollo, but Cervantes is not one of them. Apollo offers him the chance to sit on his cape, but Cervantes declines: “I have no cape.” Then, with a nod to those assembled, Cervantes observes: “You get a good seat only through favor or wealth.” (“*No hay asiento bueno, / Si el favor no le labra, la riqueza.*”) (Cervantes, 1614/1883, p. 110).

In Chapter VIII, the situation is different. All the poets are hoping to be recognized, but this time neither rank nor riches matter, only wit (“*Ni a calidades ni riquezas miran, / A su ingenio se atiende cada uno*”) (Cervantes, 1614/1883, p. 232). Apollo asks the Nine Muses to give up their lovely crowns to be used as honors, and he awards three to Naples, three to Spain, and three to poets who have made the pilgrimage to Parnassus. Cervantes does not identify the nine poets laureate who receive the Muses’ crowns.

The poem ends with Cervantes back in Madrid, and we get a feel for what his life there was like. He wears the dress of a pilgrim, and is afraid of being stabbed in the back as he walks the street in daylight. Several wealthy young poets mock him, and one derisively calls him decrepit (“*Que caducais sin duda alguna creo*”). Cervantes goes to his old and gloomy lodging house and throws himself worn out on the bed. (“*Busque mi antigua y lobrega posada, / Y arrojeme molido sobre el lecho.*”) (Cervantes, 1614/1883, p. 258)

Then Cervantes adds an amazing Appendix in prose, in which Pancraccio de Roncesvalles, a wealthy young poet, brings him a

personal letter from Apollo. The letter contains a document entitled, “Privileges, Decrees, and Warnings, which Apollo Sends to the Spanish Poets”. It is a set of humorous decrees, many of which would in fact make Cervantes’ world better. Poignantly, one states: “That every good poet, though he may not have composed a heroic poem or given great works to the world’s stage, may with any works, however small, achieve the distinction of ‘divine’” (Cervantes, 1614/1883, p. 295).

In the same year that *Journey to Parnassus* was published, Cervantes was in fact “stabbed in the back” when a spurious Second Part to his *Don Quixote* was published. Scholars generally believe that it was the work of Lope de Vega or someone in his service, writing under the pseudonym of Avellaneda. The Prologue to the False Second Part is a vicious attack against Cervantes, and confirms the glimpse into his world that he gave us at the end of *Journey to Parnassus*.

Cervantes nonetheless published his own Second Part the following year, and it was enormously successful.

The Second Part of Don Quixote

“One of the cruelest adventures in the book [is] when Sancho enchants Dulcinea, bringing the most noble of knights, for love of the purest illusion, to his knees before the most repulsive of realities: a Dulcinea coarse, uncouth, and reeking of garlic.” (Madariaga, 1961, p. 145)

When Alonso and Sancho set out for their third sally, their destination is “the great city of Toboso”, where Alonso hopes to receive the blessing of the peerless Dulcinea. Alonso is no longer so preoccupied with winning fame and glory, and he even cautions Sancho about the “vanity of the fame achieved in this present and transitory world” (p. 506). But he really wants to see his lady.

Sancho, caught in a position where he doesn’t know what else to do, pretends that Dulcinea is one of three peasant girls who are

riding their donkeys down the road from Toboso. When Alonso sees only poor country girls, Sancho swears that Dulcinea is there but must be transformed by malevolent enchanters. Alonso kneels before the “deformed beauty” that Sancho claims is Dulcinea. Throughout the rest of the Second Part, Alonso is preoccupied with how he can restore Dulcinea back into the lovely woman who is his lady.

Why is this so important to him? “Taking away his lady from a knight errant is taking away the eyes with which he sees, and the sun that shines down on him, and the sustenance that maintains him. I have said it many times before, and now I say it again: the knight errant without a lady is like a tree without leaves, a building without a foundation, a shadow without a body to cast it” (p. 671). As expressed more mundanely in the section on reality constraints, Alonso can’t be a knight all by himself. He needs a Lady on his Knight team for a real game.

Unable to disenchant Dulcinea, Alonso dies a defeated man. As he is dying, Sancho pleads with him: “Don’t die, Señor,” and suggests that they go out together again. “Maybe behind some bush we’ll find Señora Doña Dulcinea disenchanted, as pretty as you please...” But Alonso stops him with a proverb: “There are no birds today in yesterday’s nests” (p. 937).

As Madariaga (1961) beautifully shows, while Alonso’s fortunes are declining in the Second Part, Sancho’s are on the rise. Sancho is proud of the fact that he is famous, “wandering the world now in books” (p. 681), and is eager for Alonso to fulfill his promise that he would make Sancho the governor of an *ínsula* that he would win in an adventure.

The idea of Sancho as a governor would have been even funnier in Cervantes’ time, because *señoríos*, i.e., jurisdictional lordships, were a serious matter to readers of the day. In order to meet the financial needs of the monarchy, Philip II, the King of Spain from 1556 to 1598, sold jurisdiction of lands and cities to seigneurs (lords). Seigneurs had the right to administer justice and collect taxes from the people in their territories. Also known as the sale of vassals, the sale of *señoríos* was one factor contributing to a powerful and

corrupt nobility in Spain (cf. Kamen, 1991, p. 157). Seigneurs were minimally motivated to protect the poor and highly motivated to increase taxes.

Sancho and Alonso end up in the court of such a ‘noble’ couple, a Duke and Duchess who have read Part One of *Don Quixote*. The couple is delighted to have the chance to use the knight and his squire for entertainment, and wealthy enough to stage elaborate hoaxes, hoaxes that amount to psychological torture.

One of their hoaxes is to promise Sancho an *ínsula* to govern, a town in the Duke’s seigneurial region. Sancho is naturally eager to get going, but the Duchess observes that if Sancho is so foolish as to follow Don Quixote, then he must be too foolish to govern. Sancho refuses to let her have a ring through his nose: “I may be a fool, but I understand the proverb that says, ‘It did him harm when the ant grew wings,’ and it might even be that Sancho the squire will enter heaven more easily than Sancho the governor... [followed by eight more proverbs]. If your ladyship doesn’t want to give me the *ínsula* because I’m a fool, I’ll be smart enough not to care at all... [followed by four more proverbs]” (p. 679).

Eventually Sancho is taken to his *ínsula*, where he governs well but is subject to more of the noble couples’ tricks. After ten days he resigns as governor, declaring: “I was not born to be a governor... I have a better understanding of plowing and digging, of pruning and layering the vines, than of making laws or defending provinces and kingdoms. St. Peter’s fine in Rome; I mean, each man is fine doing the work he was born for. I’m better off with a scythe in my hand than a governor’s scepter” (p. 808). Sancho goes to find his master, “whose companionship pleased him more than being governor of all the *ínsulas* in the world” (p. 810).

In light of these excerpts, we can now look for patterns in the Second Part of *Don Quixote*. If we drop the details of Don Quixote’s trials, the top-level pattern that remains is “a person sees that what he loves is debased but cannot do anything about it”. If we drop the details of Sancho’s trials, the top-level pattern is “a person gives up

a position that does not fit him and affirms a place that is right for him”.

How do these patterns apply to Cervantes’ real life? Cervantes loved the theatre, and he expresses his vision of the theatre in these words: “[Plays] are the instruments whereby a great service is performed for the nation, holding up a mirror to every step we take and allowing us to see a vivid image of the actions of human life; there is no comparison that indicates what we are and what we should be more clearly than plays and players” (p. 527). It may well have seemed to him that the theatre of Spain had fallen into the hands of an Evil Enchanter, Lope de Vega, who reduced the theatre to something coarse and uncouth.

Why was this so important to Cervantes? Both because he cared about the influence of the theatre on the public, and because he found satisfaction in writing plays that could delight and teach. He had known the joy of staging plays successfully, and he describes it as “a thing of exquisite delight (*cosa de grandisimo gusto*)” (Cervantes, 1614/1883, p. 290). Without a stage on which to see his plays performed, he was like a knight without a lady.

There was nothing Cervantes could do, however, to restore the corrupted theatre to its former state, just as there was nothing Alonso could do to transform the repulsive wench back into his beautiful Dulcinea. Cervantes expresses the futility of both endeavors with the same proverb: “There are no birds in yesterday’s nests.”

The Don Quixote pattern is one of insistence. Even though Alonso cannot have what he wants, he doesn’t let go of it until he is dying. This is reminiscent of an image from Descriptive therapy known as Monkey Nut, or “I’ve Got to Have It”.

Down in South America there’s a place where there’s a certain kind of monkey, and there’s a certain kind of nut that these monkeys really love. So what the natives do is build a little wicker cage with one of the nuts inside and tie it to a tree. The monkey comes around, sees the nut, and puts his hand in and grabs the nut. But the wicker cage is built so that the monkey has just

enough room to get his hand in, but he can't get his hand out with his fist clenched around the nut. You'd think the monkey would just let go and go elsewhere, but he doesn't. He just hangs on. And that's how the natives catch the monkeys.

The contrast to the “I’ve Got to Have It” approach is letting go when the situation calls for it, and this is what Sancho does. When he realizes that being the governor of an *ínsula* is not what comes naturally to him, and is not his part to play in the scheme of things, he doesn’t hang on. To the Duke’s representatives he says: “Make way, Señores, and let me return to my old liberty; let me go and find my past life, so that I can come back from this present death” (p. 808).

How does the Sancho pattern apply to Cervantes’ life? We have seen how much Cervantes wanted a status of honor and respect among the poets of his day. This was his monkey nut. Towards the end of his life, however, he may have let go of it. While modern critics discount Cervantes’ Catholicism (e.g., Bloom, 2005), there is no question that he found “refuge in the sanctuary of the Church” (Avellaneda, 1614/1989, p. 766) and took vows in the Third Franciscan Order. At a minimum, Cervantes’ place in the Franciscan community and the Franciscan way of life may have helped him to see his hunger for status in the world of Lope de Vega in a different light.

If we look at the patterns in his *Journey to Parnassus*, we see that Cervantes accepts a place in relationship to the divinity (Apollo, God), and declines a place as “one of them” in a community where good seats are based on wealth and favor. Whether or not he receives a Muses’ crown, he continues to enjoy a relationship with the divine upon his return to Madrid. In light of this special relationship, he may have become less insistent (less grabby) about having a good place among the poets.

We have now looked at the Second Part of *Don Quixote* and seen how the patterns there may fit with Cervantes’ real life. For the Don Quixote pattern:

- The higher level description is “a person sees that what he loves is debased but cannot do anything about it”.
- The fictional representation is “Alonso sees that his beloved Dulcinea is enchanted but cannot do anything about it”.
- The real world application is “Cervantes sees that his beloved theatre is corrupted but cannot do anything about it”.

For the Sancho pattern:

- The higher level description is “a person gives up a position that does not fit him and affirms a place that is right for him”.
- The fictional representation is “Sancho resigns from the governorship of an *ínsula* in the world of the Duke and Duchess, and affirms his place as a squire”.
- The real world application is “Cervantes renounces a place among the poets in the world of Lope de Vega, and affirms his place as a Franciscan”.

Cervantes' Death

“Goodbye, humor; goodbye, wit; goodbye, merry friends; for I am dying and hope to see you soon, happy in the life to come!” (Cervantes, 1617/1989, p. 16)

After publishing the Second Part of *Don Quixote*, Cervantes lived long enough to finish *The Trials of Persiles and Sigismunda: A Northern Story*, an epic in prose that tells the story of a young couple making a spiritual pilgrimage to Rome. He died four days after completing his *Persiles'* Prologue (quoted above), and was buried by the Franciscans in a monastery in Madrid. Only two mediocre poems were composed to honor him after his death, compared to the “two entire volumes in verse, one in Spanish and one in Italian” composed to honor Lope de Vega (Weller & Colahan, 1989, p. 393).

Conclusion

In their own realms, Lope de Vega and Miguel de Cervantes each changed the dramatic structure of the real world. After the fact, we can see that Lope de Vega did Cervantes a favor by creating *comedia nueva*. Cervantes' ambition was so powerful that he could not easily have turned to something as low status as narrative writing. If Lope had not barred the door to the stage, Cervantes might have spent his life putting on a Neoclassical Poet Act in order to win the fame and renown he craved. Instead, he fulfilled his own authentic possibilities.

Narrative writing is treated differently today than it was in Cervantes' time. It is a given now that novels are works of literature, and novelists are worthy of respect and honor along with playwrights and poets. Just as Harvey initiated the change in what blood is through his work in the early seventeenth century, Cervantes initiated the change in what novels are through his creation of *Don Quixote*.

What did Cervantes do in *Don Quixote* that was world-changing? Before its publication, each narrative genre had its own artificial, self-contained world, like the world of the picaresque novel, the world of the pastoral romance, the world of the chivalric novel, and so forth. Lovesick shepherds didn't wander out of the confines of the pastoral romance, and pícaros stayed within the boundaries of picaresque novels.

Cervantes' innovation was to place the worlds of the various narrative genres into the context of the real world of his day, and juxtapose them with each other and with the real world. Thus, a knight keeps a vigil at the equivalent of a Super 8 Motel; he hears the laments of a lovelorn shepherd in the rugged terrain of the Sierra Morena; he chats with a pícaro who is working on his autobiography which will be published as a picaresque novel; he walks into a printing house in Barcelona where the False Second Part of his history is being printed; and so forth.

Once Cervantes used the real world as an all-inclusive context for the more limited worlds of a wide range of narrative genres, the old, self-contained genres were never the same. As Fuentes (2005) expresses it, “Cervantes inaugurates the modern novel by breaking through every genre so that they all may have room to exist in a genre of genres, the novel” (p. 206).

Initially, *Don Quixote* was not seen as “a genre of genres”. It simply had the status of a very funny book. No one thought that Cervantes had created a new form of behavior, a new form of narrative writing. But as writers began to imitate Cervantes’ work and to experiment with the freedom that he had given them, *Don Quixote* was elevated to the status of a new art form and eventually treated as the first modern novel. Cervantes in his turn was recognized as a creative genius, and today stands beside Shakespeare and Dante, wearing a Muses’ crown.

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Introduction to Part Three: Common Ground and Shared Practices

Wynn Schwartz, Keith E. Davis, & Fernand Lubuguin

Establishing common ground where ideas and meanings can be shared is a foundation for shared purpose and for productive use of differences in perspective. Communities have members who share values, knowledge, and skills relevant to their particular positions. The effectiveness of persons in their roles is bounded, among other things, by the adequacy of the concepts they employ. The papers that follow demonstrate how Descriptive Psychology provides a set of precise conceptual tools that foster access to significant distinctions vital to a variety of communities. The first of the essays provides a basic orientation to Descriptive Psychology, the second articulates a mathematical formulation of “structure”, the third, a clarification of criminality, the fourth unpacks a negotiation of conflict between secular and the religious communities, and the last presents a cautionary note about how significant knowledge and practice can be lost if not adequately transmitted.

Ludwig Wittgenstein taught that meanings follow from use and cannot be private. “Use”, an action concept, implies a performance, an observable operation or practice, something that can be done, well or poorly. Effective use is an appropriate criterion in evaluating the fit of any concept to actual or potential practice. Peter Ossorio and others, in a manner advocated by Wittgenstein, built the subject matter of Descriptive Psychology. In the resulting conceptual system, effective use and competent practice takes the place that truth values take in ontological systems and metaphysics. The concepts of Descriptive Psychology were designed and articulated using the criteria of real world fit and behavioral effectiveness.

A community develops its objective standards in correspondence to the effective and competent outcomes of

the community's identifying social practices. Shared use requires recognizably shared social practices based on shared elements, operations, and structures, the shared "forms of life" that Wittgenstein argued are required for the verbal behaviors he called "language games" to be played successfully. The essays in this last section of the *Advances*, in their various ways, create useful and public access to key behavioral distinctions that enhance access to particular subject matters.

When sharing a subject matter, it is useful to provide an accessible introduction and Raymond Bergner provides it in his essay, "What is Descriptive Psychology?" Bergner presents the conceptual, pre-empirical nature of Descriptive Psychology as a behavioral science of "Persons". The key "Person" concepts of "Individual Person", "Action", "Language", and "Reality" are explicated and coordinated in Bergner's introduction which allows for a coherent discussion of the application of these concepts in working with the dilemmas of the real world.

Locutions regarding structure are ubiquitous. Joel Jeffrey argues that "structure" has been a vaguely defined concept that nonetheless appears vital in intellectual work and everyday speech. But what does structure mean? Structure suggests a formal or empirical regularity regarding the complexities that attend whatever is in question. Joel Jeffrey presents a mathematical definition of the concept of structure. How structures are alike and different is subjected to Jeffrey's formulation. He unfolds a mathematics of structure and complexity that allows the relevant dimensions to be quantified. He provides examples that range from the structure of the family to the structure of intracellular organelles.

Culpability, responsibility, guilt and intent are significantly linked in the law. The law, at times, distinguishes between responsibility for one's personal characteristics and for one's behaviors. The responsibility for one's personal characteristics requires self knowledge – the absence of which may result in negligence. At issue may be a person's intention, their deliberate action, as well as non-

intentional behaviors that include accidents, reflexes, and involuntary reactions.

Jane Littmann demonstrates how Descriptive Psychology's parametric analysis of Intentional Action and Deliberate Action provides direct and useful access to the crucial distinctions required to make sense of a criminal act and a guilty mind, *Actus Reus and Mens Rea*. Littmann employs Descriptive Psychology in a manner that undoes the conceptual confusions that result from an inadequate unpacking of the concept of intentionality.

Richard Singer and Paul Zeiger use basic Descriptive Psychology concepts to explore some dilemmas that attend conflicts between religion and government. Their method involves finding shared portions of the world as a ground for negotiation. The playing field is the shared practices that stem from a shared understandings and perspectives. Cooperative action requires good faith negotiation, an honest and open presentation of concept and facts, of the sort that Hannah Arendt called moral dialog. Negotiation is an act of cooperation and of community building.

But there are limits to what can be accomplished when good faith is lacking or where one system, either of government or religion, requires either the subjugation or the elimination of the other. A fundamental requirement for negotiation appears to be an absence of totalitarian desire. Here, negotiation requires real respect for a separation of the secular from the religious. Totalitarian goals are deal breakers. Accordingly, Singer and Zeiger's essay speaks to the potential limitations of negotiation under circumstances where there is no shared respect, honesty, or willingness to acknowledge differences. In the form of a dialog, Singer and Zeiger show how a negotiation could actually work out in the context of reasonable Americans facing some current dilemmas. They show both how to establish agreement and some average expected limitations in agreement. Now imagine the difficulties of this dialog with an authentic Taliban. Theocratic government is an especially problematic state of affairs, but as Singer and Zeiger point out,

some of the best scholars of the Middle East advocate using similar principles to theirs in negotiation with Islam.

Wynn Schwartz' essay concerns how a narrow vision of science threatens the viable practice of psychotherapy through a powerful but reductionistic narrative of what constitutes empirically validated knowledge and competence. He recognizes that there continues to be significant conceptual confusion in the logical presentation of psychotherapy even if psychotherapists have developed effective and worthy practices and competencies. He argues that Descriptive Psychology can resolve this confusion and intelligibly address the formal and empirical basis of sound therapeutic practice across various schools of practice. But for Descriptive Psychology to be known it must be taught, and Schwartz worries that the community of Descriptive Psychologists is neither large enough nor vocal enough to sustain the subject matter without concerted efforts to enlarge the community and to join in others.

What is Descriptive Psychology? An Introduction

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Abstract

The purpose of this chapter is to provide an accessible introduction to Descriptive Psychology (“DP”). The chapter includes, in order of presentation, (1) an orientation to the somewhat unorthodox nature of DP; (2) an explication of DP’s four central concepts, those of “Behavior”, “Person”, “Reality”, and “Verbal Behavior”; and (3) a brief listing of some applications of DP to a variety of important topics.

At the risk of offending, I should like in this letter to offer my principle hypothesis regarding why your field has not to date arrived at any manner of broadly accepted, unifying theoretical framework, and has not for this reason realized the scientific potential, importance, and respect it would rightly possess. In brief, I believe this reason to lie in the fact that you have attended insufficiently to the pre-empirical matters essential to good science. You have understood aright the basic truth that science is ultimately concerned with how things are in the empirical world. However, you have neglected the further truth that often, as in my own case, much nonempirical work must be undertaken if we are to achieve our glittering empirical triumphs.

—“An open letter from Isaac Newton to the field of psychology” (Bergner, 2006, p. 70)

Descriptive Psychology is “a set of systematically related distinctions designed to provide formal access to all the facts and possible facts about persons and behavior—and therefore about everything else as well.”

—Peter G. Ossorio (1982, p. 2)

Descriptive Psychology (“DP”) is first and foremost a conceptual framework for the science of Psychology. Created in its original form by Peter G. Ossorio in the mid-1960s at the University of Colorado, it has subsequently been the subject of hundreds of books and papers that have updated, refined, and elaborated it, and that have applied it to domains such as psychotherapy, psychopathology, artificial intelligence, spirituality, organizations, communities, psychological theory creation, and research methodology. What DP primarily attempts to do is to provide the kind of precise, systematic, and comprehensive conceptual framework that is a pre-empirical requirement for the adequate conduct of psychological theorizing, research, and application.

Since DP is a distinctly odd duck within psychology—not a theory, not a research finding, not an approach to therapy—some orientation to its nature will be the first order of business here. The first section of this chapter will therefore be devoted to discussing DP (a) as a conceptual framework, (b) as a grammar for functioning as a person in a world of persons, and (c) as embodying a somewhat unusual, more person-centered conception of science. Section two will then be devoted to explications of DP’s four central concepts, those of “Behavior”, “Person”, “Reality”, and “Verbal Behavior”. Finally, section three will relate some applications of DP to a variety of important topics.

The Nature of Descriptive Psychology

A Conceptual Framework

When Isaac Newton created his famous theory, we are all familiar with the fact that it did an exceptional job of describing and predicting how large objects—things like apples and planets—would behave in light of the forces operating upon them. The theory, with its universal law of gravitation, its laws of motion, and other features resulted in the achievement of countless empirical triumphs such as famously predicting the presence of Neptune before anyone had ever observed that planet, and serving, centuries later, to plot the courses of spacecraft on their interplanetary missions.

What has always received much less attention is the fact that, before Newton could state any empirical propositions, he required *a new conceptual system*. The one that existed when he began his work was not sufficient to accomplish his task. So, prior to the creation of his laws, he created, from parts old and new, just such a system of concepts. For example, he essentially *invented* the concept of “*force*” as any influence that can cause a body to be accelerated. Further, he *systematically related these concepts to each other* to form a coherent conceptual framework. In defining force, for example, he related it conceptually to the concepts of *body* and *acceleration*. All of this was *pre-empirical*. He did not *observe* or *discover* what “force” meant; he stipulated its meaning. In essence, he created the pre-empirical scaffolding he needed to create his “system of the framework of the world” (Berlinski, 2000).

Descriptive Psychology, in a manner parallel to this, is *a set of systematically related concepts designed to allow one to distinguish, to describe, and to categorize all facts and possible facts concerning human behavior*. In the same way that Newton’s system enabled physicists to distinguish, to describe, and to categorize any known or possible phenomenon involving bodies and their motion, so the aim of DP is to provide a system that serves the same function for

persons and their behavior. Like Newton's conceptual system, it is itself not a scientific theory and not a set of empirical research findings, but rather something designed to meet a pre-empirical requirement for the creation of such theories and research endeavors. How could one observe or claim, for example, that a "force" was inversely proportional to the distance between two objects if one did not first have the concept of "force" ? Comparably, how could one say anything rigorously (e.g., formulate a theory or state a research hypothesis) about *persons* or *behavior* or *language* (etc.) if one lacked from the outset an adequate conceptualization of these? Further, in successful sciences such as physics, biology, or chemistry, how could one proceed if one scientist held one conception of a key concept (e.g., "synapse", "force", or "ion") and another scientist quite another? Psychology, however, continues to disagree on the meaning of such fundamental concepts as "behavior", "person", "personality", "motivation", and "psychopathology". Paraphrasing Kant, we might say that the establishment of a well and rigorously formulated conceptual system represents a "prolegomena to any future successful psychological science." Descriptive Psychology is such a system.

A Grammar for Functioning as a Person Among Persons

An analogy may be helpful in understanding this peculiar sounding notion, "a grammar for functioning as a person among persons". The analogy I will employ is that of playing baseball. Consider a strange, hypothetical situation in which people all over the world had been playing this game for many centuries, but somehow no one had ever stepped back from the enterprise and articulated the *concept* of baseball (which would be substantially but not entirely equivalent to a statement of the rules of the game). Not born with a knowledge of baseball, these people had learned to play by participating in the game in the course of growing up, and had evolved precisely the same game with the same universal set of rules all over the globe. They possessed, by virtue of having

the overall concept of baseball, a knowledge of a whole network of systematically related concepts (“run”, “hit”, “error”, “inning” etc.). In our hypothetical, then, all of these people knew how to play baseball and were in fact playing the game successfully, but somehow no one had ever articulated the concept of “baseball” itself. (Compare: historically, people spoke grammatically correct English long before anyone articulated the grammatical rules they were following in doing so.)

Consider some further features of this hypothetical “baseball world”:

1. What would fundamentally make a baseball player a baseball player would be his or her *ability to actually play baseball*—to *act* on the concept of baseball. The player would know when to go to bat, when to run to first base, how to strategize about how to get a run across, and so forth.
2. What would be *universal* across all players (paradigmatically) would be this ability to act on the concept of baseball.
3. The concept of baseball would articulate all of the possibilities of what has actually happened or could possibly happen in a game of baseball. It would be *pre-empirical* in this sense. What actually happened in a specific game would be an empirical matter, and could only be discovered through (direct or indirect) observation. But whatever has happened or will happen, if it is a baseball happening, will fall within the “world” of baseball; it will be a run or a hit or an error, etc.
4. Their sharing of the concept of baseball would render players able to understand the behavior of other players. They would not as a rule find the behavior of these others mysterious but quite intelligible. When an opponent bunted with no outs and a man on first base, or tried to steal second base, for example, the observing players would understand the behavior. This is not to say either that they could predict the behavior beforehand, or that they would never be mistaken in

- their understanding. Understanding implies neither prediction nor infallibility.
5. As masters of the game, players would speak with confidence and authority on matters pertaining to the game. With essentially no doubt or uncertainty they could, if needed, declare that, “It’s three strikes and you’re out,” or “After three outs, the team at bat takes the field and the opposing team takes their turn at bat.” Other players hearing such statements would not judge the speaker as arrogant or grandiose or beset with a delusion that they “had a pipeline to the truth.”
 6. Although historically all of the baseball players we have observed have been human beings, it is not out of the realm of possibility that we might observe aliens or robots some day playing the game. And, if they did so, we would count them baseball players. Thus, we cannot equate being a baseball player with being embodied in a certain way, or make claims such as, “Well, what is universal here is that all baseball players are organisms, and the key to understanding what they are doing lies in understanding the organismic underpinnings of their behavior.” If robots (perhaps on the order of Star Wars’ C3PO) some day play baseball, they will obviously be *nonorganismic* players. (And when computers play chess today, they are obviously nonorganismic players.)

To conclude our hypothetical, at some historical point an individual comes along and says, “I can see that all of these baseball players are following a set of heretofore implicit rules. Further, I can see, and can state, the content of these rules—the network of concepts that they are employing and how these relate to each other. I understand that what is fundamental to being a baseball player is *acting on the concept of baseball*, not being able to articulate it. After all, you have been doing it for centuries. But permit me if you will, to set forth the *cognitive content of this concept*, the rules as it were for acting as a baseball player in a world of baseball players.”

Peter Ossorio is an individual who has come upon the historical scene and done something analogous to our baseball explicator. He has discerned that there is a vastly complex, all-encompassing concept, the concept of a “Person.” What happens (paradigmatically) is that, like our hypothetical baseball players, we human beings learn this concept growing up, which means primarily that we learn, not a cognitive content, but *how to be a person in a world of persons*. Ossorio’s fundamental task in the creation of Descriptive Psychology has been to articulate this *pre-empirical concept* of “Person”, as well as the extraordinarily complex network of systematically related concepts that comprise it. In the end, keeping our baseball explicator in mind, one can say that what Ossorio has done is articulate the rules for operating as a person in a world of persons.

A Person-centered View of Science

A standard view of science, one that might be termed the “cosmic perspective,” goes loosely as follows. Some 14 billion or so years ago, there was a “Big Bang.” An unimaginably hot, dense and energetic singularity exploded, expanded outward, and became the universe. In time, matter clustered into many billions of galaxies, each with many billions of suns, and many of these in turn with their own planetary systems. In one otherwise ordinary galaxy, one ordinary sun formed and on one of its planets, earth, conditions came about in time such that life forms emerged. Over the course of several billion years, these life forms evolved and exhibited ever increasing complexity, until in the very recent cosmological past an especially complex organism emerged: homo sapiens. This species, then, is a very recent, accidentally evolved, cosmologically insignificant organism that has existed for one second of cosmic time on one ordinary planet in the vastness of the cosmos.

A second, far more rare (but not unprecedented) view of science may be termed the “person centered” perspective, and may be characterized in the following way. As human beings, we engage in many different activities, practices, and ways of life—different

“games” if you will—in domains such as romance, child-rearing, finance, music, athletics, drama, religion...and science. From this perspective, to borrow an old phrase, science is but one among many of the “games people play”.

As persons, we give accounts of many different kinds: historical, journalistic, biographical, political, fictional, personal-experiential, and more. Among these different kinds, some are scientific accounts—accounts of how things are and have been in the empirical world—about how the cosmos evolved, how we evolved, how characteristics are transmitted to offspring, and much more. Historically, we observe that some of these accounts such those of the ether and of Ptolemaic cosmology have failed to survive, while others such as Einsteinian relativity and Darwinian natural selection continue to survive, for how long we can never be sure. We have seen fit to give such accounts a place of honor in our worlds. Still, they remain but one among many of the kinds of important accounts in the broad worlds of persons.

Pursuing a further aspect of the person-centered view, Kant pointed out long ago that we have no access to noumenal reality. That is, we have no access to reality conceived as how things are independent of us, our perceptions, and our conceptual distinctions. Scientific accounts, ineluctably couched in our concepts and based on our observations (aided or unaided), must therefore of necessity always be accounts of *how things are for us*.

In the cosmic model of science characterized above, it is often said that, in the grand scheme of things, we are unimportant and insignificant. On the person-centered model, however, it is noted that, *without persons, there is quite literally no such thing as importance or significance*. Both are “our gig.” Nothing is important to planets and suns and dark matter. Without us (and other persons who may one day be discovered in the universe), it’s just mindless rocks in empty space.

On the person-centered model, if we may be permitted a dramaturgical metaphor wherein “all the world’s a stage,” we persons are the *dramatis personae*. We are center stage. We are Hamlet and

Lear and Juliet, and all the rest our props and stories. Science is one human activity. Its theories, while extremely important, are but one of many human stories, and are important because we persons have given them importance, something we did not always do. They are conceived by human minds, based on human perceptions, and conceived in humanly constructed conceptual frameworks. Without persons, there would be no science. On the person-centered view, in a certain sense, psychology may be considered the queen of sciences: as the study of persons and their behavior (which necessarily involves their “props and stories”), it encompasses all else. As Santayana once observed, “Human life is a peculiar reality in that every other reality, effective or presumptive, must in one way or another find a place within it” (quoted in Ossorio, 2006, p. 7).

Which of these scientific points of view is the the “true” one? Obviously, unlike the case of claims like “light will bend in a gravitational field”, there can be no either/or test of the truth here. Both are faithful to the facts, and both possible orientations to science. The one puts persons center stage. The other regards persons as an insignificant and derivative phenomenon. An understanding of Descriptive Psychology, however, will be aided by the recognition that it lies squarely in the person-centered camp.

Some Core Concepts of Descriptive Psychology

Descriptive Psychology’s conceptual network is vast and complex (see Ossorio, 2006). It extends well beyond what can be covered in this brief chapter. At the heart of DP, however, lie four central concepts: *Behavior*, *Person*, *Reality*, and *Language*, and I shall try here to give the reader a basic sense of these four. Since psychology is by common consensus regarded as the scientific discipline that studies the behavior of persons, a good place to begin might be with the concepts of “Behavior” and “Person”.

The Concept of “Behavior”

Consider the following hypothetical movie scene. Larry is raising his right hand to the side of his head with palms forward and five fingers extended. An observer of this, Moe, asks another observer, Curly, “What is he doing?” Curly responds: “He’s holding his hand up.” Moe gives him a dope slap, saying, “I know that, you idiot, I can see that. What I’m asking you is, what is he doing?” Curly (befuddled, checking his observations again): “He’s holding his hand up.” Moe gives him another dope slap and stalks off.

Moe is clearly dissatisfied with Curly’s answer. But Curly, confused and wishing to vindicate himself, consults several psychological dictionaries regarding their definition of “behavior”. He is surprised to find that most do not define the term at all. Typical of the answers he does find is the following one: behavior is “any observable overt movement of the organism generally taken to include verbal behavior as well as physical movements”. (webref.org/psychology/b/behavior.htm) According to this definition, behavior is essentially observable physical activity: a pigeon pecks a disk, a pianist strikes a key, a woman says “hello”, ...and Larry raises his hand to the side of his head. “There,” Curly concludes, “I was right... that was what he was doing... that was his behavior.”

So, what was his behavior? Was it nothing more than raising his hand as described? Or is Moe justified in finding this a woefully inadequate description? Psychology to date has been unable to settle upon any consensus answer to the utterly basic question of what behavior is. In general, the approach seems to be “Oh, you know... behavior!”, and no attempt is made to define or otherwise articulate the concept. Among those few who do consider the question, the most generally favored answer is that discovered by Curly in the psychological dictionary: behavior is essentially the observable overt movements (including verbal utterances) of an organism. We notice, however, that this is precisely *not* a satisfactory answer for Moe. He already knew that Larry was holding his hand up but this did not tell him what behavior he was engaging in. Was Larry... signalling

someone to stop...giving a Native American gesture of greeting... swearing an oath... indicating 5 minutes were left until the burgers were done...informing the market maker that he wanted 5 million bushels of September corn...or what?

On the mainstream psychology definition, Curly was correct when he said, “He’s holding his hand up.” And, indeed, we would all agree that he did give *a* correct description. However, we note that this same definition provides no access to any of the other possible correct answers, *including all of the truly informative ones that go beyond the observationally obvious*, to Moe’s question, “What is he doing?” In restricting us to the observable physical movements (or sounds), psychology cannot strictly speaking provide a meaningful answer to the what’s-he-doing question such as, “He’s signalling that there are 5 minutes remaining.” Beyond this, there are many further problems with this conception. If the doctor taps my knee with a rubber mallet, and my foot jerks forward, this is clearly physical movement. Should I regard and treat this as behavior—as *the same kind of phenomenon* as giving a hand signal? What about movements such as my chest rising and falling as I breathe? What about situations where a person does something privately that does not involve any observable movement at all; e.g., Jack does some mental math calculations, closes his eyes and tries to remember where he left his keys, or works on an anagram “in his head”? Absent observable movement, should we count these as behaviors?

How, then, does DP address this question regarding one of psychology’s most fundamental concepts, that of “behavior”? We may begin by noting that all behavior is *describable* as an attempt on the part of a person to effect a change from one state of affairs to another (Ossorio, 2006, p. 49). Jill combs her hair, drives to work, reads a book, makes herself a pot of coffee, and mentally calculates how many bottles of wine she will need for her upcoming party. In all of these behaviors, whether they involve overt physical movements or not, she is attempting to bring about a change from one state of affairs to another—to change her unkempt hair to a more presentable state, to shift from being unclear to being clear

about how many bottles of wine she must purchase, and so forth. (NB: It may be noted that this characterization of behavior excludes phenomena such as patellar reflex movements, and includes acts such as mentally calculating or working on anagrams.)

Going beyond this general characterization, DP maintains that human behavior is an empirical phenomenon that is not amenable to either of psychology's traditional means of capturing the meaning of concepts, those of classical definition or of prototype analysis (Rosch, 1973). It is instead amenable to a third procedure, that of parametric analysis (Ossorio, 2006). While little used within psychology, parametric analysis is a standard conceptual tool in other sciences (especially physics) and in mathematics. It may be illustrated briefly by recalling the familiar example of an empirical phenomenon traditionally captured in this way, that of color. The concept "color" is neither formally definable nor well suited to prototype analysis. However, the empirical domain of color—the set that has as its members all colors—can be captured completely for scientific (and other) purposes by employing a system that specifies values for three parameters: hue, saturation, and brightness (Gleitman, Fridlund, & Reisberg, 2004, pp. 190-191). On the three dimensional coordinate system that is the color solid, when one gives values to each of these parameters, one identifies a specific location on the color solid, which location is a specific color. Further, employing this parametric system, we are able to articulate precisely the ways in which one color is the same as, or different from, another.

Paralleling this, DP maintains that the empirical domain of human behavior—the set that has as its members all behaviors and possible behaviors—can be captured for scientific purposes by employing a system that specifies values for (i.e., assigns specific content to) eight parameters:

$$\langle B \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$$

where...

- B Behavior (e.g., the behavior of Peter moving his rook during a chess match).

- I Identity: the identity of the person whose behavior it is. An aspect of every behavior is that it is someone's behavior (e.g., Peter).
- W Want (the motivational parameter), the state of affairs that the person seeks to bring about. An aspect of every behavior is that it is an attempt to effect a change from one state of affairs to another (e.g., to achieve an improved strategic position in the chess match).
- K Know (the cognitive parameter): the distinctions (concepts) that are being acted on. An aspect of every behavior is that it is a case of acting on distinctions (e.g., rook vs. queen, knight, etc.).
- KH Know-How (the skill or competency parameter): An aspect of every behavior is that it entails the here and now exercise of some broader or more general competency or competencies (e.g., when Peter makes his move, he exercises his general ability to move the various chess pieces in the appropriate manner).
- P Performance: the process, or procedural aspects of the behavior, including all bodily postures, movements, and processes that are involved in the behavior. An aspect of every behavior is that it involves the occurrence of physical processes, which processes can in principle be described at any level of analysis appropriate to the describer's needs, from molar bodily events to finer muscular events to molecular brain events (e.g. Peter's grasping and moving the rook, or the relevant brain events transpiring as he does so). On the DP account, a description of such molecular events is not, ontologically speaking, a description of what is "really real" about the behavior, or of its "basic building blocks". It is, rather, a description of one aspect of the behavior, the physical process aspect, given, one might say, "to the last decimal point".

- A Achievement (the outcome parameter): An aspect of every behavior is that it is the bringing about of some outcome—something is different by virtue of the behavior having occurred, which may or may not coincide with the desired state of affairs specified in W (e.g., Peter’s rook being in a new position; his opponent being in check).
- PC Personal Characteristics (the individual difference parameter): An aspect of every behavior is that in its enactment personal characteristics of the behavior are expressed; e.g., Peter’s competitiveness, knowledge of chess, or tendency to prefer bold, unexpected moves. These may include Dispositions (Traits, Attitudes, Interests, Styles, Values), Powers (Abilities, Knowledge), and/or Derivatives (Capacities, Embodiments, States, Statuses).
- S Significance: what the person is doing by doing the concrete thing he or she is doing; the more inclusive pattern of behavior enacted by virtue of enacting the behavior in question (e.g., by making his concrete, specific move of relocating a piece of onyx from one square to another on a board, Peter is making a chess move and participating in the broader social practice of playing chess; depending on the context, he might also be gaining revenge for an earlier defeat, teaching his child the game of chess, or trying to show the world that a grand master can defeat a computer at the game of chess).

The recommended reading of the foregoing parametric analysis is this: Whenever a state of affairs of the kind “human behavior” is the case, a state of affairs of each of the kinds specified by the parameters is the case. Alternatively, we can say: “Any behavior (e.g., one that might be described simply as ‘Peter moved his rook’) is a complex state of affairs that includes as component states of affairs

a specific person's acting to accomplish purposes $W_1 \dots W_n$, acting on discriminations $K_1 \dots K_n$, exercising competencies $K-H_1 \dots K-H_n$, engaging in physical processes or performances $P_1 \dots P_n$, achieving outcomes $A_1 \dots A_n$, expressing personal characteristics $PC_1 \dots PC_n$, and engaging in actions having significances $S_1 \dots S_n$." (Compare: "The state of affairs that can be described simply as 'lemon yellow' is the same as the totality of states of affairs that includes the having of Hue value H_n , Brightness value B_n , and Saturation value S_n ").

This analysis could seem arbitrary or ad hoc and, relatedly, could arouse doubt about the necessity of one or more of these parameters. However, as a thought experiment, it is instructive to consider the following picture of what results if one tries to eliminate any of these parametric states of affairs from the formulation: "Peter moved his rook", but...no one moved the rook (I)...no distinctions were made between rooks and other chess pieces, board position X vs. other board positions, etc. (K)...no new state of affairs was sought by Peter (W)...no personal competence of his came into play in the act (K-H)...no process of a physical sort took place (P)...nothing was different by virtue of the behavior having occurred (A)...no personal characteristic of Peter's was expressed (PC)...or, finally, his behavior of physically moving a carved piece of onyx from one square to another had no significance beyond the concrete moving of a physical object from one location to another (S).

Aside from their use as a means for marking off the boundaries of empirical domains, parameters, in science or in everyday life, are a means by which we specify the ways in which one instance of a concept (e.g., a behavior or a color) can be the same as, or different from, another instance. If all of the values for two behaviors are identical, the behaviors are identical (compare: if hue, saturation and brightness are identical for two patches of color, they are the same color). If one or more values are different, the behaviors (or colors) are different. For example, to return to an earlier illustration, suppose that Pat and Terry engage in the same concrete overt performance of raising their right hands to the side of their head with palms forward. However, the primary value of (at least) the W (Want) parameter for

Terry is “to vote for House Bill 27,” while the primary value of the W parameter for Pat is “to make a bid at the auction”. This parametric difference renders Terry’s behavior a different behavior than Pat’s. Colloquially, despite the identity of their physical movements, we characterize this difference by giving quite different behavior descriptions: we say that what Terry is doing is “voting,” while what Pat is doing is “bidding”.

In principle, one could give an exhaustive description of any behavior by specifying all of the values of all of the above parameters. In practice, however, on any given occasion, whether scientific, therapeutic, or everyday interactional, persons make descriptive commitments to those parameters that serve their purposes in the giving of the specific description. They commit, among other things, to the W (Want) parameter when they want to describe what Pat is doing as bidding. They commit to the K (distinction made) parameter when they want to describe what Kathy is doing as treating the remark as a joke rather than an insult. They commit to the PC (Personal Characteristic, subtype Trait) parameter when they want to characterize Senator Smith’s vote on a child care bill as an expression of political ambition, not humanitarianism.

A final point involves going beyond what space permits here into matters that one can perhaps only glimpse from the foregoing discussion. The DP conception, in formulating the domain of behavior via parametric analysis, is in effect saying that in giving behavior descriptions by assigning values to parameters, we are *working a system*. By analogy, it is as if we had here explicated the concept of “algebra”, and in doing so had given only a short, simple description much as one might find in a dictionary. However, we would be aware that what had been referred to by the word “algebra” was not something simple and thinglike that one could point to, but an entire complex system that is used by persons. Where in working the algebraic system one might say, “I think $x = 3$ ”, so in working the system of behavior description, one is in effect saying things such as, “I think one value of K (one distinction being acted upon) in Peter’s behavior is ‘rook’ (vs. queen, knight, etc)”; or “I think a

value of PC for Senator Smith's behavior is 'political ambition' (vs. 'humanitarianism'). The interested reader is referred to Ossorio, 2006, for an in-depth discussion of this matter.

The Concept of a "Person"

As in the case of "behavior", psychology to date has arrived at no consensus definition or other formulation of the concept "person". When discussing persons, the usual approach is simply to assume that we all know and all agree on what this term means. When it is defined at all, the predominant tendency has been to define a "person" as a certain kind of organism. A person is taken to be a highly evolved specimen of the species *homo sapiens*, a species that via evolution has acquired certain physical features, most importantly a large, complex brain that renders this species capable of consciousness and higher mental accomplishments such as using language and solving complex logical problems.

The DP formulation of persons differs fundamentally from this. It begins by honoring the traditional intellectual custom of not defining things—things like chairs, automobiles, dollars, radios, chess pawns, and computers—in terms of what they are made of or of how this "stuff" is organized. They are defined instead in terms of what they do—*the roles they play, the ways they function* in the human scheme of things. A pawn, whether it be ivory, wood, or onyx, is something that functions a certain way in the game of chess. A computer, whether composed of ancient vacuum tubes or modern semiconductors, is a device for carrying out various operations involving the processing of information. A chair, whether wooden rocker or leather beanbag, is a piece of furniture designed to seat a single person.

Employing this function-based approach, Ossorio defined a "person" as "... *an individual whose history is paradigmatically a history of deliberate action*" (2006, p. 69). A person is an individual, in other words, that (paradigmatically) has the ability to *behave* in the full sense of that term, i.e., to engage in some behavior B,

knowing that he or she is doing B rather than other behaviors that he or she distinguishes, and having chosen B as being the thing to do from among a set of distinguished behavioral alternatives. In the vernacular, such behavior is characterized as “knowing what you’re doing and doing it on purpose”. Such behaviors as making a carefully considered move in a board game, ordering from a restaurant menu, or phrasing a verbal reply so as not to offend another, represent clear everyday examples of deliberate actions. (“Paradigmatically” gets at the point that persons are not *always* engaging in deliberate action; e.g., when they are asleep or if they have been rendered unconscious.)

Defending this conception further against the view that “person” designates a certain kind of organism, Ossorio (2006) has argued that at one time the only kind of airplane was a wooden propellor-driven one, and the only kind of computer was a vacuum tube model. At the present historical juncture, the only completely unarguable example of a person is homo-sapiens type human beings. However, many scientists have long believed that there is a strong possibility that there are persons who are aliens, and extensive efforts have been made to establish communication with such persons. Further, another longstanding endeavor exists to create computers and robots with all of the features of humans. It is not beyond the realm of possibility that at some point ones are created that are capable of entertaining behavioral options and selecting from among them—i.e., computers that, like such cinematic “characters” as Hal in *2001: A Space Odyssey* or R2D2 in the *Star Wars* series, are persons. Third and finally, ongoing programs of research explore the linguistic, communicational, and behavioral capabilities of gorillas, chimpanzees, dolphins and other infrahuman species. It is not beyond the realm of possibility that such creatures will one day come to be regarded as persons. Even if none of these possibilities were to come to fruition, the conceptual point has already been made. Our concept of “person” is not confined to organisms with homo sapiens embodiment, but extends beyond it to any creature that exhibits a certain kind of functioning. Scientists, as well as ordinary

citizens who are moviegoers, science fiction devotees, science news consumers, and believers in such religious entities as angels and devils, extend the concept to creatures whose embodiment is not homo sapiens.

Individual persons. If the conceptual system for a science of psychology is to provide conceptual access to all facts and possible facts about persons and their behavior, it must not merely capture the concept of *Person* in general, but it must also provide descriptive resources for describing *individual persons*. Whether we are psychologists, historians, biographers, or just persons leading our everyday social lives, we do and must distinguish persons, not merely on the basis of identity (“that’s John Smith”), but on basis of *what kind of persons they are*. Descriptive Psychology provides the conceptual resources for doing so with the following parametric analysis, one again that attempts to capture the actual (if implicit) concept in use by persons undertaking this essential life task:

$$\langle PC \rangle = \langle Ds, P, Dr. \dots \rangle$$

where...

- Ds Dispositions, the various inclinations or tendencies, ordinarily observable in a person by virtue of a pattern of frequency in their behavior. These include *Traits* (dispositions to engage in a certain kind of behavior such as hostile or generous behavior), *Attitudes* (dispositions to regard and treat different objects [e.g., the bible or a presidential candidate] or certain classes of object [e.g., liberals or conservatives] in certain characteristic ways [e.g, contemptuously or reverently]); *Interests* (dispositions to find certain topics or activities [e.g., world affairs, politics, or sports] captivating; and *Styles* (dispositions having to do, not with what a person does, but with how he or she does it [e.g., in a sophisticated, naive, graceful, or awkward fashion].
- P Powers, concepts having to do with what is possible and not possible for a given person. These include

the person's *Abilities* (the person's capabilities with reference to some kind of achievement such as shooting a basketball, playing chess, or learning languages); *Knowledge* (the set of facts the person has the ability to act on, such as the rules of chess or the requirements for making a good omelet); and *Values* (the set of motivational priorities that the person is routinely able to act on, such as a value for honesty or for an adventurous way of life).

Dr Derivatives, concepts which, unlike the two categories above, do not have a direct connection to behavior but are defined by their reference instead to Dispositions and Powers. These include *States* (states of affairs in which there is a systematic difference in the ordinary powers or dispositions of a person, such as being sick or exhausted or drunk); *Capacities* (the potential to acquire personal characteristics, such as a capacity to acquire mathematical skills or to learn languages; and *Embodiment* (the physical characteristics of a person, such as being six feet tall, weighing 180 pounds, or having brown eyes).

In essence, we describe what kind of person John Smith is by giving values to these parameters. As a research psychologist, clinical psychologist, organizational personnel selector, and more, I might have reason to do this in a highly systematic and rigorous way. As a prospective life partner, business associate, friend, or voter, I might do so far more informally. In either case, what I am doing is making commitments to some number of these parameters pertaining to the kind of person John is. When I describe John as “honest,” I commit to (one value of) the Trait parameter; when “flamboyant” to the Style parameter; when “obsessed with making money” to the Values parameter; when “very good with numbers” to the Ability parameter. Of course, all of these parameters will have multiple values—honesty will not be John's *only* trait. And I am saying in essence: “This is the

kind of behavior, style, motivational priority, ability, etc. that you can expect, not certainly but probabilistically, to observe in John.

The Concept of “Real World”

DP, as noted above, is a conceptual framework designed to provide formal access to all facts and possible facts about persons and their behavior, “*and therefore about everything else as well*”. Consider a few statements that we might encounter in everyday life. “She read her child a fairy tale.” “He stopped when the light turned red.” “She took along an umbrella in case it rained.” Each of these is a description of someone’s behavior. And each of them *includes references to the real world*—to the world that includes fairy tales, stop lights (and their significance), umbrellas, and rain. And, of course, each of these persons and each of their actions is also part of the real world.

If a person had no vocabulary for distinguishing aspects of the real world, the world of fairy tales, stop lights, and umbrellas, he or she would lack something completely indispensable for describing persons and their behavior. Persons, a part of the world themselves, behave in the world. If we did not have reality concepts—concepts of Objects, Processes, Events, and States of Affairs, real or imagined, present or future—we would not be able to describe anything. Therefore, a conceptual system designed to give formal access to all facts and possible facts about persons and their behavior necessarily requires reality concepts.

Consider a few further statements. “He prayed to God to forgive him for his sins.” “She came very close to being the first to discover the structure of DNA.” “He has always been intrigued by the Shakespearean quote, ‘We are such stuff as dreams are made on, and our little lives are rounded with a sleep.’” “Although an opera singer, she prefers to sing jazz songs.” Here we have statements pertaining to four different domains, the worlds respectively of religion, science, drama, and music. Behavior descriptions can literally go anywhere, go to any of the myriad domains of the real world. A conceptual

system for articulating all facts and possible facts must therefore be able to go anywhere—to the worlds above as well as to those of mathematics, athletics, poetry, finance, and so on ad infinitum. This does not of course mean that every person must have an expert's command of the conceptual system of all these domains. It means, rather, that *the conceptual system itself* must have the conceptual resources to go anywhere. (Compare: the *system* of mathematics contains the resources to go anywhere in the world of numbers, but most persons will never explore such things as Fibonacci numbers or Pascal's triangle, or acquire the competence to do so.) Now we can see the sense of Ossorio's addendum, "and therefore about everything else as well."

Let us make explicit one other place where Descriptive Psychology, or any conceptual system with the same aspirations, must go. As previously discussed, Isaac Newton required a conceptual system capable of distinguishing and articulating every fact and possible fact about physical bodies and their motions. His system, however, did not have to conceptualize anything *about Newton himself as a describer of nature*, or about any other person insofar as that person was giving descriptions and explanations, scientific or otherwise, of the world. In contrast, any system whose goal it is to give formal access to all facts about persons and their behavior must provide coverage of the behavior of the person writing the theory, as well as that of all other persons giving descriptions and explanations of the world. That is to say, it must be *reflexive*. It cannot be, as in Newton's case, a system for use by persons in a purely spectating role. If it does not cover us and our doings, it is incomplete.

With all of the above considerations in mind, DP contains the following:

1. The concept of the "*Real World*" (or "*Reality*") itself, conceived simply as "the state of affairs that includes all other states of affairs." (Compare Wittgenstein: "The world is all that is the case" [1922, # 1].)

2. A set of concepts, designated the “Reality Concepts”, for distinguishing what there is or could be in the world. These are the concepts of “*Object*”, “*Process*”, “*Event*”, and “*State of Affairs*”.
3. A system for articulating the relations between these concepts. (Compare: Newton defined his concepts in terms of their systematic relationships to each other; thus, “a *force* is any influence that causes a *body* to be *accelerated*”). In DP, these are designated the “transition rules” for the Reality Concepts.
4. A set of Descriptive Formats for describing/conceptualizing any actual or possible Object, Process, Event, or State of Affairs from any real world domain in such detail that any one exemplar of these can be differentiated from any other.

While we cannot explore the very considerable complexities of this system in an introductory overview such as this, we can say that the four elements just noted comprise what is known as the “State of Affairs System”. This system and its operations allow us to conceptualize the objects, processes, events, and states of affairs from any domain of human activity—baseball, mathematics, music, finance, etc.—and to describe in highly useful ways the behavior of persons operating within these domains (see Ossorio, 2006, for an in depth discussion of these matters).

The Concept of “Verbal Behavior”

The fourth and final indispensable concept, if we are to succeed in providing a conceptual framework that gives descriptive access to all facts and possible facts about persons and their behavior, must be that of *Verbal Behavior*. Why is this so? First of all, it is a truism to say that verbal behavior is a kind of behavior, and a further truism to say that it is a part of the real world. But why, we might ask, should we regard it as such an *important* kind of behavior, and such an

important part of the real world that it merits being singled out for separate discussion?

Earlier, we noted that a conceptual framework, to be adequate to its task, must be *reflexive*. It cannot be, like most of our general psychological *theories*, a portrayal of reality that provides no formal access to the behavior of the author of the theory or to his or her linguistic products themselves. The authors of these theories are clearly engaging in *verbal behavior*. Failing this reflexivity requirement, they are left making the following self-contradictory claim: “We have given you a general theory of human behavior, but we have nothing to say about *our own verbal behavior* of writing this framework. And of course, by extension, we have nothing to say about the verbal behavior of other creators such as Newton, Aristotle, Einstein, Darwin, Shakespeare, Dante, or Copernicus.”

Further supporting the critical importance of language and verbal behavior in a comprehensive conceptual framework, it is obvious that we could not understand, not only the material you are now reading or the works of countless authors such as those just cited, but *any* written or spoken communication *anywhere*, without resort to language. We could not understand what others said to us, the signs on the highway, the newspaper story, the latest novel, the television program, or an indefinitely large number of other verbal products that we encounter in our lives. Nor could we engage in the arguably central activity of our lives—that of communicating with other persons via the medium of spoken or written language.

Finally, we frame our worlds in language. We formulate our conceptions of ourselves, of other persons, of our place in the scheme of things, and of what sort of world this is and what possibilities it contains for us, via the medium of language. Indeed, as Wittgenstein once stated, “The limits of my language mean the limits of my world” (1922, #5.6).

For all of these reasons, any conceptual framework that purports to give formal access to all facts and possible facts about persons and their behavior must include a formulation of verbal behavior—of language and its use by persons.

The DP formulation of verbal behavior. Let us take as our simple paradigm case the everyday occurrence of “Jack says X to Jill.” X here might be “I love you”, “Stop it” , “Checkmate”, “Please put the cap back on the tooth paste”, “The cat is on the mat,” or an indefinitely large number of other utterances. On the traditional mainstream view, what is the behavior here? As discussed previously, it is the observable, vocal/physiological performance of the utterance in question. It is the making of the sound conventionally assigned to some locution such as, for example, “Stop it!”

What is wrong with this picture? For starters, it largely omits the entire idea of *meaning*. We observe, trivially and obviously, that words have meaning. We observe that certain sounds we make such as “checkmate!” mean something, while others such as “grk” do not. There is something radically different about making these sounds. We read or hear sentences, often for the first time and thus with no learning history in relation to them—“the principle of special relativity states that...”, “We are such stuff as dreams are made on”; “President Kennedy was assassinated in Dallas in 1963”—and they *communicate* something to us. They *tell us* something; they have some *significance*. Mainstream accounts, even cognitive science ones focussing on “information processing”, do not contain formulations of language wherein this feature of meaning is represented (see Searle, 1984, on the “Chinese room” thought experiment).

Is this fair to the mainstream point of view? Does not everyone, mainstream psychologists included, comprehend the simple truth that words have meaning? Do they not point to that old paradigm wherein our parents pointed to things and said “chair” or “horse,” or “red,” and by this means we learned the meanings of these terms, this meaning being essentially that which they stood for? Two brief remarks only. First, this view of language and meaning has long since been discredited, most notably by Wittgenstein (1953), who asked, for example, what objects or properties do words like “hello” or “hooray” or “shut up” designate. Second, even if we accepted this view, it would not solve the problem. It is after all, a *theory* of meaning. One of the concepts included in the theory is that

of “language”. But, just as Newton had to define the term “force” *before he could theorize* that “the force operating on the apple is the same as that operating on the moon,” so we need a definition or other articulation of the concept “language” *before* we can offer a theory of it. The commonsense account in question contains no such pre-empirical, conceptual articulation. On the mainstream account, when mommy pointed to the picture and said “horsie”, her vocal behavior remained nothing more than the making of a sound.

A second obvious difficulty with this standard notion of language as vocal performance has already been mentioned in another connection, and will be reiterated here only briefly. On the vocal performance account, every instance of a person saying, for example, “I love you,” being the same performance, is considered the same behavior. However, this is transparently false. Saying, for example, “Hit me”, might be a directive to the card dealer to provide another card or the request of the masochist for further gratification. Saying “I love you” might be declaring one’s love, trying to con a wealthy widow out of her money, reciting one’s part in a play, jokingly declaring one’s affection for one’s shiny new car, and many other things. In everyday life, when someone asks of the speaker, “What were you doing?” and they merely state that they were uttering the words in question (“I was saying, ‘Hit me’”), this is generally regarded as an evasive, ignorant, or a lamely humorous response. It is not regarded as an adequate response to the question: “What behavior were you engaging in?” The mainstream view, as we saw in the case of behavior in general, in essence tries to strip all else but the performance from the behavior and patch it all back in as something separate (for example, the motivation and/or the situational demands) that is causing this performance. It is as if they said to Romeo: “No, you were not declaring your love to Juliet. That is not what you were doing. What you were doing was uttering the words ‘I love you’ in the context of certain feelings of affection, certain motivations, and certain situational demands. Oh, and by the way, we are working on a science that will one day be able to link all these things together in a lawful way.”

The Descriptive position. Language is not necessary for the making of distinctions. With no evidence of any involvement of language, the rat can distinguish the red triangle from the blue square and jump to it; the gazelle can distinguish the odor of the lion from that of the grass, and bolt; the human infant can distinguish the bottle from other stimuli, and reach for it. What each of them cannot do, so far as we know, is *distinguish the distinctions they are making*. The rat merely discriminates red triangle from blue square. It cannot distinguish *that it distinguished* triangle from square, or jumping to triangle from jumping to square. For this, language is required.

In DP, language is fundamentally about something that goes beyond the mere making of distinctions, namely, the distinguishing or marking off of these distinctions with specific, public, communicable locutions, i.e., with words. These distinctions, or concepts, may be about objects (e.g., rocks), processes (e.g., ice melting), events (e.g., lights going out), properties (e.g., being red), relationships (e.g., the cat being *on* the mat), or other states of affairs. Their communication may occur in the context of different forms such as giving information (“The cat is on the mat”), issuing orders (“Stop!”), asking questions (“Where are the keys?”), exclaiming (“Hooray!”), and many others. What language is essential for is for us to be able to distinguish which distinctions these are and to communicate this to others via public, communally agreed upon words. If I did not possess language, I could distinguish the red triangle from the blue square, but, like the rat, I could not know that that’s what I was doing and I could not communicate this to another. I could not know that *what* I was distinguishing was red triangle from blue square, or jumping from not jumping, or landing on versus alongside of the red triangle. And I also could not know that *what* I was doing was distinguishing one state of affairs from another state of affairs.

Further, without language, I could distinguish the red triangle from the blue square, but I could only do it *in the presence of the red triangle and the blue square*. That is, I could only distinguish them if they were there to be distinguished. In contrast, with language I

am freed from this restriction and can distinguish them any time or any place. For example, right here and right now, with no such “stimuli” present, I can say to you, “Think of the difference between a red triangle and a blue square”, and you can do so. Via language, we can distinguish them, discuss them, and communicate with each other about something we both understand precisely because we both possess this non-stimulus bound vehicle for doing so: our public, shared, communicable language.

All of this indicates a final reason why language must be a core element in any conceptual framework for human behavior. If I cannot distinguish doing one thing from doing another—if I cannot select from among distinguished behavioral alternatives—then I cannot engage in deliberate action. Thus, for us persons, such an ability to distinguish the distinctions we are making (the burger vs. the fried chicken, the red jacket vs. the blue coat), including the distinction of behavioral options open to us (ordering the burger, putting on the red jacket) is a *sine qua non* for deliberate action—and thus for *being a person*. What could be more central than that? No language, no persons.

So how, more technically, can we articulate the concept of verbal behavior? Earlier, we presented a formulation that captured the concept of Behavior in general:

$$\langle B \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$$

Verbal behavior, as a kind of behavior, is amenable to being analyzed with this formula. The following formula, however, takes the matter further and addresses the question of what, in addition to being a case of behavior, must be the case for a given behavior to be a case specifically of *verbal* behavior. In other words, it is designed to capture the concept itself of *Verbal Behavior*:

$$\langle V \rangle = \langle C, L, B \rangle,$$

where...

- V Verbal Behavior (e.g., the behavior of the teacher saying to her young pupil, Jill, “Point to the triangle.”)

- C A Concept, which is also a distinction C vs C', where C' is a set of alternatives to C (e.g., triangle vs. non-triangle)
- L A Locution, i.e., a word, phrase, or sentence that is spoken, written, or conveyed by gesture (e.g., in sign language) on the occasion in question (e.g., "Point to the triangle.").
- B A set of Behaviors, Bc, each member of which qualifies as acting on the concept in question (e.g., teaching geometry, or creating buildings with triangular support structures)

A detailed explanation of this formulation is beyond the scope of this introductory presentation. However, expressing the matter in everyday language, we can say the following: Verbal behavior, for example, a behavior such as a teacher saying "Point to the triangle" to a pupil, is a kind of behavior. As such, it conforms to the formula for all behavior, $\langle B \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$. But, it is a special kind of behavior with three special features.

First of all, it involves as a value of the P (Performance) parameter a Locution (L), i.e., some spoken word, phrase, or sentence; here "Point to the triangle."

Second, it involves as a value of the K parameter there being some concept(s) such as "triangle", which concept not only itself has criteria for its correct employment (3 straight sides, etc.), but also represents a distinction between it and other concepts (non-triangles), which distinction is a publicly shared one in some linguistic community (e.g., that of all English speakers). What is distinguished in the verbal behavior is this concept (or concepts). It is because C represents a selection from a set of alternatives (such as non-triangles) and represents a publicly shared, communicable distinction (unlike "grk") that verbal behavior can be informative in a way that swimming or chopping wood cannot.

Third, there needs to exist some set of behaviors, Bc, such that each represents a way of acting on the concept C. After all, Plato

notwithstanding, concepts do not have any sort of independent, freestanding existence. Their only real world existence is as distinctions made in some person's behavior, and were there no behavior calling for this distinction, there would be no such concept. Thus, a condition for something to be a concept in the first place is that there be a set of behaviors that call for this distinction. This might be as concrete and obvious as the behavior of sweetening one's coffee calling for the concept "sugar", or as obscure and abstruse as the behavior of having a philosophical discussion of the mind-body problem calling for the concept "supervenience".

In the interests of clarity, it may be helpful to express this matter negatively. If we were discussing triangles instead of verbal behavior, we might say something like, "If it doesn't have three sides...isn't enclosed, etc....then it can't be an instance of the concept "triangle". Paralleling this, and coming back to verbal behavior, we can say the following:

1. If there is no vocal (or written or gestural) performance of some locution—if no one says, for example, "The cat is on the mat"—there is no verbal behavior here.
2. If there are no publicly shared concepts/distinctions corresponding to these locutions—no concepts of "cat", "mat" or "on"—then there is no verbal behavior here (but perhaps there is nonsensical vocal noise of some sort—"grk" again).
3. If there does not exist any way to act on the concept(s) in question—if it makes no difference anywhere in anyone's behavior, social practices, or forms of life—then there is no verbal behavior here (although again we might have that vocalized noise such as "grk").

Applications of the Descriptive Framework

The concepts of *Behavior*, *Person*, *Real World*, and *Verbal Behavior* are the four most basic concepts in the vast network of

concepts that is Descriptive Psychology. Given limitations of space, others will not be pursued here (the interested reader is referred to Ossorio, 2006). As noted in the introduction, DP concepts have been applied over a vast range of topics, and I shall in closing mention only a small subsample of these applications. Regrettably, the linkages between these works and the concepts just discussed cannot be drawn here. In the area of psychopathology, DP formulations and treatment recommendations exist for schizophrenia (Ossorio, 1997), depressive states (Bergner, 1988), manic states (Wechsler, 1991), suicide (Kirsch, 1982), bulimia (Marshall, 1985; Bergner, 2005), problems of adolescence (Roberts, 1991), and many other problems. With respect to psychotherapy, a distinctively Descriptive approach known as “Status Dynamics” has been developed (Ossorio, 1997; Schwartz, 1979; Roberts, 1985; Bergner, 2007). In the area of social psychology, much work has been done on love and other close relationships (Davis, 1985; Roberts, 1985; Bergner, 2000). Further, a great deal of work has been done in the areas of artificial intelligence (Jeffrey, 1981), spirituality (Shideler, 1990), communities (Putman, 1981), organizations (Putman, 1990), health care (Peek & Heinrich, 2006), cognitive psychology (Ossorio, 1982; Jeffrey, 1998; Bergner, 2006), psychological theory creation (Ossorio, 1981a, 2006), and research methodology (Ossorio, 1981b, 2006). Finally, with the publication of this book, nine complete volumes of *Advances in Descriptive Psychology* are available containing many more applications of DP to a wide variety of other issues and problems.

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Structure

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Abstract

The concept of structure, and the related ones of structural complexity and similarity, are ubiquitous in the sciences, arts, and literature. While they are used routinely and to good effect to gain insight into a very wide range of phenomena, they have never been rigorously defined. Beginning with a unification of Ossorio's Process, Object, Event, and State of Affairs Units into a single formal Aspect Specification, this article presents a mathematical definition of structure and structural similarity applicable to any aspect of the world—object, process, event, or state of affairs—and a mathematical quantification of structural similarity equally widely applicable. Intentional and deliberate action and communities, core concepts of Descriptive Psychology, are formalized with Aspect Specifications, and Aspect Specifications of actual objects and processes are given. Examples illustrating the calculation of the structural similarity of disparate kinds of things in the world, ranging from human families to intra-cellular organelles, are given.

Unification of the Descriptive Units

In his seminal work addressing scientific and conceptual issues in describing the real world, Ossorio (1971/1975/1978/2005) presents a formal system of four categories of what there are in

the world and the logical relationships between them. The four categories are object, process, event, and state of affairs. As is always the case with fundamental concepts, the four are defined in terms of each other via the single logical transformation “is the same as” in a series of re-write rules comprising the State of Affairs System (SAS). The concepts are then used to develop descriptive formats—the Object, Process, Event, and State of Affairs Units (OU, BPU, EU, and SAU, respectively)—of sufficient expressive power that they may be used to specify any part or aspect of the world. The Object Unit, for example, specifies exactly what information must be given to completely specify an object, at any level of detail: a pencil, a car, a computer, a human body. Each Unit is a parametric formulation of the ways in which that kind of thing—object, process, event, or state of affairs—can vary.

One of the most significant facts about the SAS and the descriptive Units is that they embody no assumptions about what is most basic or fundamental to the world or, more generally, to a world. In particular, the objects, processes, events, and states of affairs need not be physical, as is the case with the customary description of the world found in the physical sciences: fundamental particles comprising atoms, which comprise molecules, etc. The descriptive Units can be used and have, in fact, been used to describe various aspects of chess, banking, organizational management, marketing, and biology.

In this article we use the State of Affairs System (particularly the descriptive Units) to develop a new formulation of an important and extremely widely-used concept, that of structure. Based on this formulation, we develop novel mathematical formulations of two related concepts, structural complexity and structural similarity, which, for the first time, allow precise definition and quantification of the concepts. Because they are based on the formal concepts of object, process, and state of affairs, rather than on any more traditional physicalist or reductionist formulation, the mathematical formulations are directly applicable to definition and quantification of structure, complexity, and similarity in the entire range of

phenomena where those concepts are used, ranging literally from physics to poetry and literature. To illustrate this applicability, a range of examples, from basic chemistry to human families, are presented.

To develop these formulations, we must first address a certain difficulty with the descriptive Units as they stand. One of the basic logical facts about the four reality concepts of object, processes, events, and states of affairs is their inter-convertibility, i.e., the same thing can be described as an object, process, event or state of affairs (Ossorio 2005). World War II, for example, can be described as one complex object, event, process, or state of affairs. Accordingly, Ossorio states that the Object, Process, and Event Units may be converted into one another by first converting them into State of Affairs Units (Ossorio, 2005, p. 61). However, examining the respective Units, it is not at all clear how this could be done. The Units have different forms and different parts. The Process Unit, for example, contains Stages and Options, while the Object Unit contains Constituents that are Objects. Because it is sufficiently unclear how one might convert Object descriptions to Process descriptions, the convertibility itself is unclear. This is more than a practical or esthetic issue, for if the formats are not interconvertible then either the logical convertibility codified in the SAS is incorrect, or the formats are incorrect.

We present a formalization of the Object, Process, Event, and State of Affairs Units that unifies the descriptive formats into a single format and completely clarifies the logical equivalence of the Units and their interconvertibility. (Since the Units are already formal, this formalization might most appropriately be termed a re-formalization.) Devising a new formalism to describe a range of already-formalized objects is common practice in mathematics, where it is done for two purposes: to highlight formal similarities and to provide a basis for new insights. A classic example is group theory, in which many different objects and operations on groups are described with a uniform formalism that clarifies similarities of structure irrespective of differences of the particular objects. The

formulation presented here has similar purposes: it provides a means of specifying a world (or any part of one) in a uniform format that highlights the formal structure of the “thing” regardless of whether it is an object, process, event, or state of affairs, thereby enabling precise comparison and analysis of various aspects of the world when those operations would otherwise be difficult or impossible. Intriguingly, the two things need not be of the same kind at all. We can, for example, rigorously quantify the similarity between a biological organism and a human society; between a machine and an organization; or, more abstrusely, between a building (an object) and flapping flight (a process). Analogies and metaphors of this sort are extremely common, and this formulation makes it possible use them as a rigorous, quantitative tool.

We then use the formalization to develop a new mathematical formulation of the concepts of structure, structural complexity, and similarity of structure. Because we are beginning with Ossorio’s unique conceptual analysis, the formulation provides scientific capabilities not previously available: mathematically rigorous, quantifiable formulations of the similarity and complexity of any parts or aspects of the world.

Ossorio (1971/1975/1978/2005) discusses at some length the SAS as a formal system in the sense that concepts of object, process, event, state of affairs, and relationship are formal, meaning they are defined solely by their logical relationships with each other, much as “point”, “line”, and “plane” are defined in the discipline of plane geometry. SAS Rule 1, for example, states, “A state of affairs is a totality of related objects and/or processes and/or events and/or states of affairs.” The phrases “object”, “process”, “event”, and “state of affairs” are formal identifiers of concepts defined by this and the other SAS Rules, not references to something outside the SAS, empirical generalizations, etc. As elsewhere in Descriptive Psychology, Ossorio deliberately uses the customary terms “object”, “process”, “event”, and “state of affairs” in part to avoid the appearance of inventing something unlike our existing concepts. As well-chosen as this strategy was for the purpose of articulating

Descriptive Psychology and making clear that it is an articulation of concepts already shared by persons, it has a significant drawback when used for other purposes, such as presenting the system to those who do not have a background in Descriptive Psychology. Specifically, because the terms “object”, “process”, etc. are ordinary English, the SAS is virtually always misunderstood as a set of arbitrary definitions or empirical generalizations rather than as a formal system. In light of these considerations, the formal unification of the descriptive Units is presented in a more traditional mathematical notation.

Examining the BPU, OU, and SAU, we find that each contains four kinds of specification: 1) parts or constituents; 2) relationships between the constituents (attributes being 1-place relationships); 3) contingencies that specify which constituents may occur under various conditions, including occurrence of other constituents in this or any state of affairs, object, or process; and 4) eligibilities, i.e., specification of which actual individuals are eligible for each constituent. Each constituent, relationship, and individual is specified by a formal name, that is, a name that serves merely to distinguish it from others rather than to define it in some way. For example, as we will see in more detail below, one relationship that is part of a paradigm case (Western) family is that the husband and wife love each other, a distinction that can be represented by $\text{Love}(H, W)$ and $\text{Love}(W, H)$, the standard device in mathematical logic. $\text{Love}(H, W)$ is a formal identifier, not a definition; we are not taking on the task of “defining” love mathematically. It could equally be identified by the name “L”, “R121”, or any number of other formal names.

One of the central concepts implicit in the SAS, and explicit in the descriptive Units, is that specification is done at a chosen level of detail; further detail is specified via further Object, Process, Event, or State of Affairs Units. A description is complete when it fully specifies the object, process, etc., at that level of detail; that is, it specifies all the constituents, contingencies, relationships, and eligibilities necessary for the “thing” to be *that* thing and not some other. Completeness is not related to having lower-level details. A

description may be complete and correct but have little in the way of detail specifying the structure of any constituent. For example, we might have complete specification of the practice of “motivating a subordinate to improve their performance” that includes, as a stage, the practice “assess the subordinate’s intrinsic motivations” but have no further specification of that assessment practice. Similarly, we might have a specification of an automobile engine with constituents of engine block, valve system, air system, ignition system, cooling system, exhaust system, lubrication system, and power delivery system; and with the various relationships between these constituents; but no further specification of, e.g., the valve system; therefore without any mention of a valve or camshaft, which would be present in a specification of the valve system itself. In short, to say that a description is complete is not to imply that that no further detail can be specified.

In summary, a specification of an object, process, event, or state of affairs via the respective descriptive Unit consists of a specification of the constituents of the object, process, event, or state of affairs; relationships between constituents; contingency rules governing occurrence of constituents; and eligibilities; at a particular level of detail in every case; by formal name.

Aspect Specifications

In developing a single formalism that unifies the formal descriptive Units for objects, processes, events, and states of affairs, it is convenient to have a “cover term” for the four kinds of things, to ease the exposition. In our culture (and, to our knowledge, most cultures), there is a strong tradition of considering the world to be an object and parts of it to be sub-objects. This is, as discussed extensively in (Ossorio, 2005), a logical error, and terms such as “thing” or “entity”, carrying the connotation of “object” that they do, are almost unavoidably misleading. A world, and our world, is a single state of affairs that incorporates all other states of affairs, objects, processes, and events (Ossorio, 2005, p. 29). We therefore

adopt the term “aspect” as our cover term for any “thing” in the world, whether object, process, event, or state of affairs; and refer to the unification to be developed as Aspect Specification.

To ease the transition to a presentation that is necessarily rather mathematical in style, we introduce a simple example of describing something in the world: an ordinary, paradigm case, kitchen chair. A paradigm case chair consists of a seat, a back, and four legs. However, it is not sufficient to have the correct parts; they must be arranged in certain ways to be a chair. The seat must be attached to the legs, as must the back. The back and legs must be approximately perpendicular to the seat. (We will see below how “approximately perpendicular” is handled formally.) The legs and back must be on opposite sides of the seat. In addition, the parts must have certain properties, such as strength and rigidity. There are also properties of the chair itself, such as having sufficient strength to support an ordinary human: an object like a chair, with parts having the necessary attributes, but arranged in such a way that it collapsed under the weight of a pencil would not ordinarily be called a chair and could not be treated as a chair. Finally, there are other conditions regarding the parts of the chair that must be met, such as the requirements that the seat, back, and legs not be alive.

It should be noted that we are not attempting to “define” the concept of chair, in the traditional mathematical sense, but rather to describe what would ordinarily be called “one ordinary kind of chair”—a paradigm case of chair, one about which it would be said, “If ever there were a chair, this is one.”

So far we have described *a* chair, but not an actual thing in the world, an actual chair. To this point, three kinds of things have been included in the description: a list of necessary parts or constituents, a list of relationships that must hold between the parts, and a list of limits or constraints on properties of the constituents and of the chair itself. To describe a particular chair, we identify the specific physical objects that are the legs, seat, and back; that is, that fill the roles of leg, seat, and back. To specify that, we must identify the actual things and say which ones can fill which roles, i.e., are eligible to be

each constituent. For example, if we switch two of the legs of a chair, we consider the object to be the same chair.

In summary, to give a description of the chair, one must specify its parts, their relationships, constraints on the parts, and the eligibilities of the actual individual things to be each part. Re-stated in mathematical form, these four parts are the core of the unification of the descriptive Units. Figure 1 presents this mathematical form, which we term *Aspect Specification*.

In more detail, the Aspect Specification consists of an ordered triple (N, T, D), where:

- N is the (formal) name of the aspect including, optionally, a list of alternate names. These names may be any identifying locution, including but not limited to words, phrases, entire sentences, paragraphs, or numerical or symbolic codes.
- T is an element of the set {O, P, V, S}, representing classification of the aspect as Object, Process, Event, or State of Affairs.
- D is a set of *paradigms*, the major varieties or descriptions of the aspect of the world. We often have multiple descriptions of some object, process, etc., and there are often multiple varieties of what is recognizably the same thing. In addition, it is often desirable to specify alternate descriptions due to the state of knowledge of the phenomenon: conjectures, possible alternative mechanisms, etc. The paradigms are the distinct descriptions of the aspect. Each paradigm of D is an ordered 4-tuple (C, CR, G, E), where:
 - $C = \{(C_i, T_i)\}$, in which C_i are the constituents and T_i is each constituent's classification, an element of the set {O, P, V, S}, representing "object", "process", "event", or "state of affairs." Each constituent is specified by a formal name, i.e., an identifier that distinguishes the C_i . As discussed in Ossorio (1971/1975/1978/2005), the names are any identifying locution: mathematical symbols, words, phrases, or sentences from a human language, etc.

The Aspect Specification (AS) is an ordered triple (N, T, D), in which:

- N is the formal name of the aspect and, optionally, a list of alternate (formal) names.
- T is the classification of the aspect as classification as Object, Process, Event, or State of Affairs
- D is a set of *paradigms*, the major varieties or descriptions of this aspect of the world. Each paradigm consists of:
 - $C = \{(C_i, T_i)\}$, in which C_i are the constituents and T_i is each constituent's classification as Object, Process, Event, or State of Affairs, each C_i specified by formal name.
 - $CR = \{CR_i\}$ is the set of n-ary relationships that must hold between the C_i , specified by formal name.
 - $G = \{G_i\}$ is the set of contingencies governing the occurrence of a C_j , each G_i being an ordered triple (C_j, GR_i, OC_m) specifying the constituent, the other constituent (of some Aspect) on which the occurrence of C_j is contingent, and the relationship between the two constituents.
 - $E = \{(C_i, \{(I_{ij}, ER_{ij}, OC_{ij})\})\}$. For each constituent C_i there is some set of individuals that may serve as that C_i , each governed by a rule in terms of a relationship and some other constituent:
 - I_{ij} is the set of actual individuals, specified by formal name;
 - ER_{ij} is name of the set of relationships governing the eligibility of each individual I_j for constituent C_i
 - OC_{ij} is the constituent (of some Paradigm of some Aspect Specification) upon which the eligibility depends.

Figure 1. The Aspect Specification

- $CR = \{CR_j\}$ is the set of n-ary relationships that must hold between the named constituents. Any relationship may be included, not only those definable in terms of physical locations or quantities, and not only those definable mathematically. In the chair example, we noted that the legs must be approximately perpendicular to the seat; the phrase “approximately perpendicular” identifies a relationship, one that is difficult to define mathematically but is routinely recognized and acted on by persons. As with constituents, relationships are specified by formal name: R33, mother-of, etc., the representational device used in mathematical logic. The relationship between the legs and seat of a chair can be named with the phrase “approximately perpendicular”, or with a style of name that is commonplace in

computer programming, approximately Perpendicular. Equations specifying quantitative relationships, including differential equations, are formal relationship names. As is customary in mathematics, a property or attribute is a one-place relationship.

- $G = \{G_i\}$ is the set of contingencies or conditions on the occurrence of a Named constituent. Contingencies may be quite complex conceptually, for the occurrence of a constituent may be contingent on the presence of a named constituent of a Paradigm of any other aspect—object, process, event, or state of affairs. For example, it is not uncommon for the occurrence of a stage of a process to be contingent on the occurrence of a stage of an entirely separate, otherwise unrelated, process. Formally, though, specifying the contingency requires only specifying the constituent whose occurrence is contingent, the constituent (of some Aspect) upon which the occurrence is contingent, and the relationship between the two, in each case by formal name. Thus, each G_i is an ordered triple (C_j, GR_k, OC_m) . (The constituent OC_m may itself have many constituents and relationships involving them.)

The relationships CR_j characterize the “arrangement” of the Constituents—physical, temporal, logical, behavioral, or any sort, that is, the configuration of Constituents that must be the case for this to be a case of aspect A. By contrast, contingencies are specifications of which Named constituents may occur, depending on the presence of some other constituent of some aspect, and are the means for specifying further restrictions on what can occur and still be a case of aspect N. (Ossorio, 2005, p. 63 and p. 43). Their function in the AS is thus to narrow the range of allowable configurations of constituents, not to specify the configurations themselves.

- The constituents and their relationships specify the structure of the aspect. Additionally, as discussed in (Ossorio, 2005) and as we saw with the chair, one must specify which actual “things” (processes, objects, events, and states of affairs) may or must fill the roles named by the constituents. This eligibility information

includes the constituent C_i , the actual individuals that serve as, or take the part of, C_i , and any rule governing the eligibility of an individual to be C_i . This rule, as with contingencies, is specified by naming the relationship and the constituent (of this or another Aspect) on which the eligibility depends. Thus the eligibilities are denoted by a set $E = \{(C_i, \{I_{ij}, ER_{ij}, OC_{ij}\})\}$. in which, for each C_i ,

- ◇ I_{ij} is the set of actual individuals eligible for constituent C_{ij}
- ◇ ER_{ij} is (the name of) the relationship governing whether I_j can be C_i
- ◇ OC_{ij} is the constituent (of some Paradigm of some Aspect Specification) upon which the eligibility depends.

As noted, the AS is not a new conceptual formulation, but a restatement in a different formalism of the descriptive Units given in (Ossorio, 2005). To that end, we show the form the Aspect Specification takes when used to specify an object, process, or state of affairs.

Specifying aspects that are processes

A process is a change from one state of affairs to another with at least one intermediate state of affairs (Ossorio, 2005, p. 38). The states of affairs commonly, but not necessarily, involve objects and their relationships. Processes may occur in many versions, i.e., combinations of the stages.

Thus, the $\{(C_i, T_i)\}$ for a process include:

1. Two constituents, specifying the before-state and after-state.
2. A subset identifying stages, i.e., constituents C_j in which $T_j = P$. Some stages may be accomplished via two or more alternatives; these alternatives are included in this subset.
3. A subset identifying the elements, i.e., $T_j = O$ or S

4. A subset identifying the versions of the process. Each of these version constituents is a state of affairs, i.e., $T_k = S$, and its constituents are the stages that comprise the version.

The relationships between stages specify those that happen sequentially, in parallel, overlapping, or in any other temporal relationships.

Specifying aspects that are objects

Objects have only object constituents and, in that sense, are simpler than aspects in general or processes; each constituent of an object is of Type O.

Objects provide perhaps the clearest illustration of the concept of multiple descriptions of something. For example, in biology, a cell has a part called the ribosome. A part of the ribosome called the large ribosomal subunit is very commonly described as having a roughly spherical main body and three lobes (i.e., with three constituents); but equally commonly, it is described as being comprised of two rRNA chains (5s, 23s) and a number of proteins.

Specifying aspects that are states of affairs

Ossorio (1971/1975/1978/2005) notes that the state of affairs is the most general kind of thing in the world; in fact, a world is, formally, a state of affairs. It is therefore not surprising that, with states of affairs, we come full circle: the general Aspect Specification is the specification for a state of affairs.

Specifying aspects that are events

As discussed in (Ossorio, 2005), an event is a direct change from one state of affairs to another, so the event description is the simplest of the four kinds of description, consisting simply of the names of two states of affairs descriptions. Thus, the Aspect Specification for

an event consists of the triple (N, E, D), where D consists of the pair (A₁, A₂), in which A₁ and A₂ are each are of the form (N, S, D).

Examples of Aspect Specifications

In this section we give examples of ASs. The examples are chosen from disparate realms to illustrate the previously-mentioned range of applicability, including to areas not typically considered amenable to formal representation—such as the structure of a family; and to prepare the ground for showing we can define similarity and complexity measures that can be used to compare the structure of things that are otherwise entirely unlike—such as a family and an automobile engine or the economy of a society and production line.

A practice in an organization

Jeffrey and Putman (1981) give the following Basic Process Unit (BPU) (Ossorio, 2005, p. 38) description of one of the practices of a software development organization (Figures 2A and 2B).

Name: Responsible persons in the Laboratory find and fix a problem in a No. 4 Generic

Stages:

1. Responsible persons in the Laboratory find out about a problem
 - Option 1-1: A person at Indian Hill discovers a problem and reports it
 - Option 1-2: A person at Indian Hill discovers a problem and has the responsible programmer file a Failure Report
 - Option 1-3: A person at Indian Hill discovers a problem and has the FR coordinator tell the responsible programmer about it
2. People who keep track of problems track the course of the problem
3. The responsible programmer decides the response to the problem
4. The responsible programmer implements the chosen response to the problem
 - Option 4-1: The responsible programmer produces the fix for the problem
 - Option 4-2: The responsible programmer files a Not-Applicable Correction Report
 - Option 4-3: The responsible programmer files a Not-Implemented Correction Report
 - Option 4-4: The responsible programmer files a Cancel Correction Report
5. People in a support group install the fix for the problem in a No. 4 Generic.

Versions:

1-1, 2, 3, 4-1, 5; 1-2, 2, 3, 4-1, 5; 1-3, 2, 3, 4-1, 5; 1-1, 2, 3, 4-2; 1-1, 2, 3, 4-3; 1-1, 2, 3, 4-4; 1-2, 2, 3, 4-2; 1-2, 2, 3, 4-3; 1-2, 2, 3, 4-4; 1-3, 2, 3, 4-2; 1-3, 2, 3, 4-3; 1-3, 2, 3, 4-4

Figure 2A. BPU of a software development practice
Process aspects

Elements	Individuals
1. person at Indian Hill	1. anyone at Indian Hill
2. problem	2. member of 4ESAC
3. fix for the problem	3. 4E4
4. response to the problem	4. 4E5
5. NA CR	5. 4E6
6. NI CR	6. persons in a support group
7. CC CR	7. the FR for the problem
8. No. 4 Generic	8. the CR for the problem
9. FR coordinator	9. incorrect behavior by the ESS 4 machine
10. responsible programmer	10. people in System Test
11. people who keep track	11. people in a development group
	12. people in the Field Support Group

Eligibilities
1. E8: I3, I4, I5
2. E1: I1
3. E11: I10, I11, I12

**Figure 2B. BPU of a software development practice
Elements, individuals, and eligibilities**

The Aspect Specification of this process description is:

- **Constituents:**
 - ◇ C_1 : “Problem in No. 4 Generic exists”; $T_1 = S$
 - ◇ C_2 : “Problem in No. 4 Generic is resolved”; $T_2 = S$
The BPU does not include specification of the before and after states of affairs; these two Constituents are in addition to constituents named in the BPU.
 - ◇ $C_3 \dots C_{14}$: the Processes named in the Stage-Option list; each of $T_3 \dots T_{14} = P$.
 - ◇ $C_{15} \dots C_{25}$: the Objects identified in the Element list; each of $T_{15} \dots T_{25} = O$.
 - ◇ $C_{26} \dots C_{37}$: the States of affairs in the Versions list (each Version being a set of processes and therefore a state of affairs); each of the $T_{26} \dots T_{37} = S$.
- **Eligibilities:**
 - ◇ (E8, I3, \emptyset)
 - ◇ (E8, I4, \emptyset)

- ◇ (E8, I5, Ø)
- ◇ (E1, I1, Ø)
- ◇ (E11, . I10, Ø)
- ◇ (E11, I11, Ø)
- ◇ (E11, I12, Ø)

(where Ø denotes “no rule” or, equivalently, “always eligible”).

Comparing the Aspect Specification to the BPU form of this description, we can see that the AS may provide little advantage over the BPU in the way of readability or accessibility. That, however, is not its purpose. Its purpose is to provide a unification of the descriptive Units so we can address the concept of structure.

Intentional and Deliberate Action

One of the foundational formulations of Descriptive Psychology is the parametric formulation of Intentional Action:

$$IA = \langle I, W, K, Kh, P, A, PC, S \rangle$$

(Ossorio, 2006). Each of these parameters is specified by formal name, and each is a state of affairs or process, as follows:

- W (want) is a state of affairs.
- K (know) is a set of state of affairs descriptions identifying the distinctions being acted on.
- Kh (know-how) is a set of state of affairs descriptions identifying the skills necessary for this action. A skill is characterized by the achievements it makes possible, and so each skill is identified by a set of names of states of affairs.
- P (performance) is the procedural aspect of the behavior.
- A (achievement) is a state of affairs specifying the actual outcome of the behavior.

- PC (person characteristics) is a set of state of affairs, each specified by name, identifying the personal characteristics of which this behavior is an expression.
- S (significance) identifies the larger intentional action this is an aspect of. Since any behavior is specified by name and IA parameters, this is a configuration of processes and states of affairs, which is formally a state of affairs.

Intentional Action descriptions are cleanly handled by Aspect Specifications. Each item of knowledge, i.e., each distinction in K , is a constituent, as is each K_h item and each PC item. An Intentional Action AS has constituents $\{C_i\}$ for W , each K item, each K_h item, P , each PC item, A , and S ; with the corresponding $\{T_i\}$.

Intentional Action is the most general case of behavior. As discussed in (Ossorio, 2006), by setting the appropriate parameters of the intentional action description to null, one can describe the behavior of humans, animals, machines, or more “basic” things such as particles. What distinguishes human beings, the paradigm case persons with which we are all familiar, is Deliberate Action, the case in which the person knows what they are doing and chooses to do it. Formally, this means that W and K are each of the form $(IA_k, \{IA_1, IA_2, \dots, IA_n\})$ (Ossorio, 2006). Since each IA_j may be specified via an AS, each set $\{IA_1, IA_2, \dots, IA_n\}$ is an AS, as is the pair $(IA_k, \{IA_1, IA_2, \dots, IA_n\})$; therefore Deliberate Action may also be formally articulated via Aspect Specifications.

Communities

Communities are a core concept of Descriptive Psychology, because communities have the central place in the life of persons that they do. This article is addressing and formalizing the concept of structure in its full range of applicability, including what is commonly referred to as “social structure”, i.e, organized, cohesive groups of interacting individuals in which the individuals are persons and the “interactions” are persons engaging in human behavior:

families, teams, task forces, companies, governmental bodies, nations, supra-national organizations, entire cultures, and so forth. Accordingly, we show here how to apply Aspect Specifications to formally specify communities.

The concept of community, as formulated by Putman (1981), is that a community is a configuration specified by

$$C = \langle M, S, Ct, L, P, W \rangle$$

where

M	Members
Pr	Practices
Cp	Choice Principles
St	Statuses
Ct	Concepts
La	Language
W	World

S, Ct, and P each identify a set of Constituents, formally specified by name (and, as elsewhere, by Description when more detail is needed). W, the community's world, is a single Aspect, the state of affairs incorporating all other Aspects of that community. Language includes the set of all verbal behaviors in a community, and each verbal behavior is specified by the parameters $V = \langle C, L, \{B_i\} \rangle$ (Ossorio, 2006). For any behavior V, $\{B_i\}$ is an AS whose constituents B_i denote the behaviors, i.e., intentional actions, that are cases of acting on C; L, the locution, is a process; and C is a state of affairs description, therefore, a constituent of type S. The entire set L of verbal behaviors V is thus a Constituent of type S, identified by formal name, as with all constituents and relationships.

Structure

The Concept of Structure

We are now prepared to address the central topic of this article: structure and structural similarity.

The concept of structure is ubiquitous in both everyday and scientific life, so much so that its use goes essentially unremarked. References to structure are found in physics, chemistry, biology, mathematics, astronomy, sociology, cognitive psychology, business, finance, economics, art, literature, and poetry, to name only a few. However, ubiquity notwithstanding, there is no rigorous definition of structure, i.e., a formal definition that captures the concept as used. This lack significantly limits its use by scientists and others interested in precise formulation of their subject matter. We now use Aspect Specifications to give such a definition, thereby making it possible to use the concepts of structure and structural similarity formally and quantitatively.

While there is no accepted formal definition of structure, examination of uses of the concept shows that it is intimately related to the concept of relationships. For example, an extremely widely used Internet resource states, “Structure is a fundamental and sometimes intangible notion covering the recognition, observation, nature, and stability of patterns and relationships of entities...A structure defines what a system is made of. It is a configuration of items. It is a collection of inter-related components or services.” (Wikipedia, 2009b).

In mathematics, an area to which one might reasonably look to find a definition of structure, we find two disciplines—*universal algebra* and *model theory*—in which structure consists of an underlying set and the relations defined on that set, i.e., between elements of it. The mathematical discipline of *category theory* studies what are called “structure-preserving” functions between

mathematical objects, i.e., functions that preserve the relationships between objects.

In biochemistry, discussions of the primary, secondary, tertiary, and quaternary structure of proteins are commonplace (Voet & Voet, 2005). In every case, the discussions articulate relationships between constituents of the protein. Every discussion of the structure of cells and their parts discusses components of the structure and their relationships (Alberts *et al*, 2002). In physics and engineering, one mathematically analyzes how structures behave in various conditions, i.e., how the relationships between components of the structure change under various loads.

In the social sciences, social structure—of organizations, societies, families, professions, and so forth—is typically defined in terms of the statuses within the various Communities. The structure of statuses is another way to talk about relationships: manager-subordinate, physician-patient, teacher-student, husband-wife, mother-daughter, etc. Thus, to talk about family structure is to talk about the relationships between family members. Social structure is also used to refer to the relationships between larger social entities in a society: families, interest groups, religions, ethnicities, gangs, etc., i.e., the entire range of communities that are part of larger communities. Economic structure refers to the relationships between economic processes, objects, and events. Universities teach courses in the structure of the novel, in which the relationships between aspects of the story are the central subject matter. We can see just such a discussion, albeit in literary form, in the following:

A novel is like a symphony in that its closing movement echoes and resounds with all that has gone before. . . . Toward the close of a novel unexpected connections begin to surface; hidden causes become plain; life becomes, however briefly and unstably, organized; the universe reveals itself, if only for the moment, as inexorably moral; the outcome of the various characters' actions is at last manifest; and we see the responsibility of free will (Gardner, 1991).

The novel, in other words, shows the relationships between the characters' actions and events in the depicted in the novel.

In light of all of the foregoing examples, it seems clear that our concept of something's structure is that of its constituents and the relationships between them.

Using Aspect Specifications to Define Structure

In an Aspect Specification, each Paradigm of the Description of an aspect of the world, or of a world, consists of a specification of a set of constituents, their relationships, contingencies, and a set of eligibility rules. At first glance, the set $C = \{(C_i, T_i)\}$ and $R = \{R_j\}$ appear to capture exactly the concept of structure as consisting of components and relationships. However, a bit of care is needed, for the aspect—object, process, event, or state of affairs—may have multiple descriptions, therefore, multiple structures. To talk about something's structure is to talk about its structure *under a particular description*. With this elaboration, we can define the structure of any aspect of a world as follows:

The *structure* of aspect A, as specified by Paradigm P, is the ordered pair of sets $\{C, CR\}$ of constituents and inter-constituent relationships in P.

As shown in Fig. 1, there are three types of relational statements in an Aspect Specification: CR, GR (relationships in contingencies), and ER (relationships in eligibility rules). As we have defined it here, structure includes only the inter-constituent relationships CR, because this appears to capture the concept of structure as it is used. While it is clearly possible to expand the definition to include the contingency relationships GR, this does not appear to be the paradigm case concept of structure. Eligibility rules, because they govern which individuals may serve as the various constituents of an aspect, are analogous to the operational aspects of a process, i.e., what must be given to specify an *actual instance* of the aspect rather than the *structure* of the aspect per se.

There are, in principle, an unlimited number of possible Descriptions of a world or some aspect of it, but in many cases one Description is so commonly used that is considered the “normal” case. This is true with many ordinary objects and processes in everyday life, but it is also true in scientific and technical communities. In such cases, we commonly find the normal Description is referred to as simply, “the structure of X”, eliding the phrase “under description D.”

When describing the structure of communities and organizations, and when comparing their structure, this phenomenon becomes significantly more important. It is often the case that an organization’s Practices, for example, may be described in many ways, i.e., via different Descriptions, but the Description considered accurate and complete by the members of the community is the one customarily called “correct.” In short, while many Descriptions of the same Aspect are logically possible, the Descriptions do not all have the same status.

Measuring structural complexity and similarity

In the sciences and in ordinary life, we speak of and use two concepts related to structure: complexity and similarity. We now use the formal definition of structure to derive mathematical definitions of these concepts, thereby providing rigorous and quantifiable measures of them. The goal is to develop a definition of structural similarity that allows us to calculate the similarity of any two Aspects of the world.

Complexity

A preliminary step in the derivation of the structural similarity measure, which makes the derivation somewhat easier, is to develop a measure of structural complexity. We define the *basic structural complexity* of an Aspect A, with N constituents A_1, \dots, A_N and relationships CR_1, \dots, CR_K relationships, recursively as:

$$BSC(A) = \sqrt{N^2 + K^2 + \varepsilon \cdot \sum_{i=1}^N BSC(A_i)^2} \quad (1)$$

ε is an experimentally-determined multiplier modulating the impact of the complexity of constituents, sub-constituents, etc. An experiment of this kind would involve assembling a panel of qualified judges of complexity of a set of aspects of interest, querying them to determine their assessments of the complexity of the aspects, and then determining the value of ε that yields the best match with the experimental data.

Formula (1) is designed to directly measure the following aspects of the concept of structural complexity:

1. We call something more complex if it has more parts—i.e., constituents.
2. We call that thing more complex if it has more relationships between the constituents.
3. We call something complex when its parts have greater complexity.

One candidate for inclusion in Formula (1) is conspicuously absent: complexity of relationships between constituents. It seems, on inspection, that we use the concept of complexity of a relationship when we call something complex, and it would therefore be appropriate to include it as part of structural complexity. On further examination, however, the situation is more problematical. We can see this by examining two kinds of relationships: those involved in human systems and in physical systems. Since human relationships are defined in terms of the eligibilities for practices, one way to define relational complexity is by the number of Practices in which the relationship appears in an eligibility rule. It is not clear, however, how well this definition corresponds with our concept of the complexity of a relationship.

Consider, for example, two relationships between teacher and student. TS_1 is characterized by the ordinary classroom practices of

lecturing, giving homework, doing homework, giving exams, doing exams, and giving feedback on homework. TS_2 is characterized by the same practices plus the additional practice of one-on-one tutoring of students. It is easy to say the complexity of TS_2 is greater than that of TS_1 as a matter of mathematical definition, but it is by no means clear that we would say that TS_2 is more complex than TS_1 , other than in this purely definitional sense.

A different example, and a different kind of difficulty, may be found in the physical world. Engineers frequently study what happens to a physical body under various conditions, such as the deformation of a structure in response to a force. This defines a relationship between two quantities, specifiable via an Aspect Specification in which the constituents are the states of affairs “force applied” and “conformation of structure.” This relationship is analyzed mathematically, and graphs depicting the relationship between force and deformation routinely constructed. Engineers commonly describe some of these relationships as complex, particularly when the equations governing the relationship of the quantities are complex. There is, however, no accepted mathematical definition of the complexity of such relationships, and no accepted way to mathematically define the complexity of formulas involving complex mathematics.

In short, defining a measure of complexity of relationships applicable across the entire range of phenomena of the real world—which is the range of applicability of Aspect Specifications—is beyond the scope of this paper. For our purpose here, which is addressing structure and structural similarity, we do not need such a measure. We shall see below that the role of BSC in the development is only to provide a means of consistently ordering constituents of an aspect for purposes of a structural similarity calculation. A full development of the concept of complexity appears to be an interesting topic for further research.

We have defined BSC solely in terms of constituent relationships CR_i , excluding contingency relationships GR_i and eligibility relationships ER_i , for the reason noted at the beginning of this

section: it is not clear the paradigm case of structural complexity includes those relationships. Should it be practically useful or valuable to include them, the extension of the definition of BSC to incorporate these other relationships is straightforward: the value “K” is replaced by the number of all included relationships.

While there is currently no accepted general formulation of relationship complexity, it may often be the case that there is an *a priori* formulation of it in a particular domain, a formulation defining, for any relationship R in that domain, its complexity $\mathcal{C}(R)$. In this case, we define the *extended structural complexity* ESC of an aspect A as:

$$ESC(A) = \sqrt{N^2 + \sum_{i=1}^K \mathcal{C}(R_i)^2 + \varepsilon \cdot \sum_{i=1}^N BSC(A_i)^2} \quad (1b)$$

Note that $BSC(A) = ESC(A)$ if $\mathcal{C}(R_i) = 1$, for each R_i .

Complexity has been studied and defined in a number of ways by many authors in a variety of disciplines (Wikipedia 2009a), and this definition is only one of many possible. Of those that appear to address structural complexity (as contrasted with, for example, difficulty of computation), all use the concepts of number of constituents and the number of their relationships in some form. Kolmogorov complexity, for example, defines the complexity of a string of bits as the length of the shortest binary program that can compute the string. Krohn-Rhodes complexity defines the complexity of certain mathematical objects (called “semigroups”) in terms of the number of other mathematical objects (“groups”), related in a certain way (the “wreath product”) needed to re-describe them. In the field of computer software, a number of attempts have been made to define the complexity of a program in terms of the number of possible ways the code can be executed. In recent years, an entire field of study, known as Complex Systems, has arisen. A complex system is one that has a large number of components related in such a way as to produce nonlinear system behavior. To our knowledge, no previous definition of structural complexity has been devised to

directly measure the aspects of number of constituents, number of relationships, and (recursively) the complexity of constituents.

The Pythagorean formula in (1) and (1b), known mathematically as the Euclidean distance, is a traditional and widely-used formula for computing distance. Recalling basic geometry, the differences in x-coordinates and y-coordinates vary independently; thus, this measure is a standard method for combining independently-varying quantities into a single one.

Similarly, the number of constituents and relationships in a Description and the complexity of each constituent are all independent quantities. Nevertheless, any distance measure may be used, both here and in the formulae developed below; nothing depends on the use of this particular measure.

Similarity

In formally defining a similarity measure between any two Aspects, we want to take into account the following intuitions:

- The measure should be responsive to differences in the number of constituents of the respective aspects.
- The measure should be responsive to differences in the aspects themselves. A 2-gallon pail and an 8-ounce drinking glass would be considered different, even though they had identical shape and constituents.
- The measure should be responsive to differences in the attributes of the constituents of the aspects.
- Since relationships between constituents are the heart of the articulation of the concept of structure, the measure should reflect differences in relationships between constituents. The differences may be that the two aspects have different inter-constituent relationships or that they have the same relationships to different degrees.

- When the structure of the constituents of the aspects is known, the similarity between the aspects should reflect the similarity of the structure of their respective constituents.

Our goal is to define a mathematical measure of similarity, but we will do this by developing a formula for “dissimilarity.” This lets us use the mathematical concept of distance: a small distance means a small difference in similarity, and the mathematics are a bit easier. We define the structural distance between two aspects in terms of the difference of:

1. the number of constituents of each aspect,
2. the properties of the aspects themselves,
3. the properties of the constituents,
4. differences in relationships between the aspects’ constituents, and
5. differences in structure of the constituents, as follows.

Let A and B denote any two aspects—object, process, event, or state of affairs, not necessarily of the same kind—for which we have structural specifications, i.e., Descriptions including at least the constituents and their relationships. Denote the constituents of A and B by A_1, \dots, A_{N_A} and B_1, \dots, B_{N_B} , respectively, and the properties of interest by P_1, \dots, P_M . (It is not required that all A-constituents and B-constituents have all properties.) Denote the constituent relationships (CR_i , in Fig. 1) between A-constituents by AR_1, \dots, AR_K , and those between B-constituents by BR_1, \dots, BR_L .

Calculations of the similarity between A and B are affected by the order of the constituents. Consider, for example, two organizations A and B. A has a large and complex marketing department and a small, simple shipping department; while B has a large and complex shipping department and a small, simple marketing department. The calculated similarity between A and B will be quite different, depending on whether the two marketing departments and two shipping departments are compared, or whether A’s marketing department is compared to B’s shipping department.

In some cases, the Specifications of A and B are in terms of constituents commonly recognized as comparable. If we are calculating the structural similarity of two automobile engines, two human faces, the bodies of two animals of the same species, two versions of a production process, two political communities with recognized sub-communities, etc., the correspondence between the ordinarily-used constituents of A and of B is unambiguous. In the example above, we would normally compare corresponding marketing and shipping departments. In other cases, however, there is no such implied correspondence.

Consider, for example, calculating the similarity of organizations A and B, but with the addition that A has a large accounting department and small IT department; while B has a large department devoted to on-line sales, and a small consulting division. In more extreme cases, we may need to compare aspects with no clearly comparable constituents, such as an automobile engine and a turbofan jet engine; the liver and the pancreas; or putting on a play and building a microchip.

To address this issue, we adopt the following procedure: when there is an already-accepted correspondence between constituents of the two aspects to be compared, those pairs are used in the calculation; when there is no such a priori correspondence between constituents of A and B, the complexity Formula (1) is used to order the constituents of each aspect in decreasing order of complexity, thus providing a consistent basis for the similarity calculation. In the example of organizations A and B, we would compare corresponding shipping departments and marketing departments, because that is

	P_1	...	P_M
A_1			
...			
A_{NA}			

Figure 3. The Constituent Property Matrix PA

the accepted correspondence, and order the remaining constituents according to Formula (1).

We represent the properties of A-constituents in a property matrix PA, as shown in Figure 3:

- PA has M columns, one for each property of interest.
- The matrix entries are the values of each constituent on each property P_i .
- If a constituent does not have property P_i , that matrix entry is blank.

The properties of B-constituents are represented similarly, in the matrix PB.

Re-order the rows of PA and PB to reflect (1) customary correspondence, and (2) decreasing order of BSC of the remaining A-constituents and B-constituents, as discussed above.

The values in PA and PB may represent quite different properties, with numerical values in entirely different ranges, so in order to meaningfully compare numerical values representing disparate properties, the values must be normalized. Accordingly,

- If any column has a value < 0 , re-scale the values of the column by adding the absolute value of the minimum value of the column to each value in it. This makes the minimum value of each column 0.
- Letting PA_i denote column i of PA and $pmax_i$ denote the maximum value of column i of PA *and* PB, normalize the values of PA to the range 1 to 10, by setting the new $PA_i(A_j)$ to $10 * (PA_i(A_j) + 1) / (pmax_i + 1)$. (The value of 10 is an empirically-determined value, chosen to emphasize the relative importance of property and relationship differences compared to simple number of constituents.)
- Set each empty entry of PA to 0.

The values of the property matrix PA are now between 0 and 10, 0 indicating the component does not have the property of that

column, and (by construction) 1 being the minimum actual property value.

Similarly normalize the values of PB.

We can now define the *property distance* and *constituent property distance* between A- and B-constituents, A_i and B_j , by the Euclidean distance between the corresponding rows of PA and PB:

$$PD(A_i B_i) = \sqrt{\sum_{k=1}^M (PA_k(A_i) - PB_k(B_i))^2} \quad (2)$$

and the constituent property distance between A and B is

$$CPD(A, B) = \sqrt{\sum_{i=1}^N PD(A_i, B_i)^2} \quad (3)$$

It is commonplace to represent properties of aspects—objects, processes, etc.—in form like that of the constituent property matrix but with just two rows, one for each aspect. Assuming we have properties Q_1, \dots, Q_Z of A and B, we define the *property distance* between A and B as:

$$PD(A, B) = \sqrt{\sum_{i=1}^Z (Q_i(A) - Q_i(B))^2} \quad (4)$$

Some properties cannot be compared, i.e., $PA_k(A_i) - PB_k(B_i)$ or $Q_i(A) - Q_i(B)$ is meaningless, unless there is an accepted *a priori* ordinal representation of the difference $Q_i(A) - Q_i(B)$. This is a well-known phenomenon in statistics, where demographic data such as religion, ethnicity, country of origin, etc. are common examples. Such a situation may arise in other domains as well, such as cases in which the physical location of a state of affairs is a property of interest. In such a case, the difference is either ignored in the PD calculation, or the accepted *a priori* definition is used. (We shall see an example of this below, in calculating the structural distance between two families.)

We use a similar matrix technique to calculate differences in relationships between A- or B-constituents. The values of the relationships CR_j are given by ordered n-tuples. Each relationship has a specific value. For example, in human hemoglobin in the R-state, the angle between the two constituents customarily named $\alpha_1\beta_1$ and $\alpha_2\beta_2$ is 15° . Thus, the relationship has the formal name “angle”, and $\text{angle}(\alpha_1\beta_1, \alpha_2\beta_2) = 15$.

Denoting the number of A-tuples by NAT, and the number of B-

	R_1	...	R_K	R_{K+1}	...	R_{K+L}
A-tuple ₁						
...						
A-tuple _{NAT}						

Figure 4. The Relationship Matrix RA

tuples by NBT, we define RA as shown in Figure 4:

- RA has $K+L$ columns, one for each relationship between A- or B-constituents
- Each row of RA represents one n-tuple of A-constituents, so there are NAT rows. Denote these n-tuples $ta_1, ta_2, \dots, ta_{NAT}$
- The matrix entries are the values of the relationships on the n-tuples. For example, the entry for the matrix at the row $(\alpha_1\beta_1, \alpha_2\beta_2)$, column “angle”, is 15.
- If an n-tuple does not have relationship R_k , the corresponding entry of the matrix is blank.

Similarly, represent the relationships between B-constituents as the matrix RB.

As with PA, the values of RA must be normalized in order to be able to make meaningful calculations:

- If any column has a value < 0 , re-scale the values of the column by adding the absolute value of the minimum value of the column to each value in it.

- Letting RA_i denote column i of RA , and $Rmax_i$ be the maximum value of column i of RA and RB , normalize the values of RA to the range 1 to 10, by setting

$$RA_i(ta_j) = 10 \times (RA_i(ta_j) + 1) / (Rmax_i + 1).$$

(As with P , the value of 10 is an empirically-determined value, chosen to emphasize the relative importance of property and relationship differences compared to simple number of constituents.)

- Set each empty entry of RA to 0.

Similarly normalize the values of RB .

As with properties of constituents, it is necessary to have a consistent scheme for calculating the Euclidean distance between rows of RA and RB . Just as the constituents of two aspects may be commonly recognized as comparable, in some cases the rows of RA and RB represent tuples that would commonly be compared. For instance, in the family structure example below, mother, father and siblings have various relationships. We would ordinarily compare the mother-father relationships and the sibling relationships, rather than calculating the difference between the mother-father relationships in one family with the sibling relationships in the other. Again as with properties, in other cases there may be no such implied correspondence. We would see this, for example, if one family has an older estranged half-sibling and a nanny, while the other has a pet dog and a live-in elderly mother.

We therefore re-order the rows of RB as follows. When there is an *a priori* correspondence between rows (tuples) of RA and RB , set row 1 of RB to the row customarily comparable to row 1 of RA , row 2 of RB to that customarily comparable to row 2 of RA , and so forth, until we reach a row of RA which has no customarily-corresponding row in RB , or all rows of RA are exhausted. For the remaining rows of RA , set the next row of RB to the row of RB closest, by Euclidean distance, to the first remaining row of RA , the next row of RB to the row next closest to the next row of RA , and so forth, until all rows

of RA have been exhausted. Append any remaining rows of RB to the re-ordered RB matrix, in the existing order. (The order of these remaining rows does not matter, as will be seen in the discussion following Formula (6) below.)

We can now define the **total distance between two Aspects A and B** in terms of the property distance and the structural distance:

$$TD(A, B) = \sqrt{PD(A, B)^2 + SD(A, B)^2} \quad (5)$$

The *structural distance* SD(A, B) is defined recursively, using RA and RB, as follows:

Let $MC = \max(NA, NB)$ and $MT = \max(NAT, NBT)$. Then if both A and B have Descriptions, i.e., specified constituents and relationships, we define the structural distance SD in terms of the Euclidean distance between tuples of RA and RB:

$$SD(A, B) = \sqrt{\begin{aligned} & (NA - NB)^2 + CPD(A, B) + \\ & \sum_{j=1}^{MT} \sum_{i=1}^{K+L} (RA_i(ta_j) - RB_i(tb_j))^2 + \\ & \delta \cdot \sum_{i=1}^{MC} SD(A_i, B_i)^2 \end{aligned}} \quad (6)$$

If $NA > NB$, then $PD(A_i, B_j) = PD(A_i, 0)$ for $i > NA$, and similarly if $NB > MC$.

If $NAT > NBT$, i.e, there are more relationship tuples in RA than in RB, then the Euclidean distance for the “extra” RA-tuples (rows) is found by treating RB as having extra rows filled with zeroes, i.e., by considering $RB_i(tb_j) = 0$ for $j > NBT$, and similarly if $NBT > NAT$.

If $NA > NB$, then for $i > NB$, there is no B_j corresponding to A_i , so $SD(A_i, B_j) = SD(A_i, 0)$ where 0 indicates that the values of the property and relationship matrices for B_j are all zeroes, and similarly if $NB > NA$.

If either A or B have no Description, $SD(A, B) = 0$, corresponding to the intuition that if we know nothing of the structure of A or B, we can say nothing about their structural difference.

δ is an experimentally-determined discount factor reflecting the relative importance of the distance between constituents of A and B. (As with ε , preliminary work indicates a value of approximately 0.7 for δ .)

Intuitively,

- $PD(A_i, B_j)$ measures similarity of properties of each pair of constituents.
- The sum $\sum_{i=1}^{K+L} (RA_i(ta_j) - RB_i(tb_j))^2$ measures how much the constituents of A and B differ on the entire set of relationships R_1, \dots, R_{K+L} ;
- The sum $\sum_{j=1}^{MT} \sum_{i=1}^{K+L} (RA_i(ta_j) - RB_i(tb_j))^2$ measures the total

difference in structures A and B, as specified by the relationships R_i between A- and B-constituents.

If A and B are the same, except having different names of constituents and relationships (mathematically, are isomorphic), $TD(A, B) = 0$. As the properties of A and B, the number of their constituents, the properties of the constituents, the structure of A and B, and the substructures of A and B diverge, $TD(A, B)$ increases.

It was noted in the discussion of the Basic Structural Complexity measure that in some applications it may be desirable to incorporate a measure of the complexity of relationships, $\mathcal{L}(R_i)$. A somewhat similar situation is the case with the similarity measure SD. Formula (6) can be considered a “basic” or “fundamental” measure, in that it measures differences between relationships of constituents without taking into account any differences in relative importance

of relationships. This basic measure may not be what is needed in all applications. For example, in some social structure similarity calculations, such as similarity of families, it may be of value to emphasize certain relationships over others, resulting in a measure that is “weighted” by importance of certain relationships. This may be done by weighting each relationship with a value w_i as follows:

$$WSD(A, B) = \sqrt{\frac{(NA - NB)^2 + CPD(A, B) + \sum_{j=1}^{MT} \sum_{i=1}^{K+L} w_i \times (RA_i(ta_j) - RB_i(tb_j))^2 + \delta \cdot \sum_{i=1}^{MC} WSD(A_i, B_i)^2}{}} \quad (6b)$$

Examples of Structural Similarity

We noted at the outset of this article that an important fact about the descriptive Units, and therefore of the Aspect Specification unification of them, is their unlimited range of applicability. The (Name, Description) methodology, in which each aspect, constituent, and relationship is identified by purely formal name, and further described via further Aspect Specifications, provides a technical resource applicable to the entire range of what there is in the world: communities, complex individual behaviors, mechanical systems, biological objects and processes (including brains and neurological processes), psychodynamics, molecular structures, etc., ad infinitum. In the examples below we have purposely chosen disparate kinds of aspects, from families to molecules, to illustrate this applicability.

Structural similarity of two families

Family A consists of a mother, father, and two children. The mother and father are married and love each other. Both parents love both children, and the children love each other. However, the

children also compete with each other for success in school. The mother is age 40 and in reasonable health; the father is age 42 and also in reasonable health, though slightly less so than the mother. A has an income of \$70,000 and is Catholic.

Family B consists of a mother, father, and three children. The mother and father are married and love each other. Both parents love all the children. The two younger children love each other, but both resent the eldest and compete with her for the each parent's affection. (In the standard fashion, the spousal love relationship is distinguished from that of the parent-child love relationship and the sibling love relationship. For the purposes of this example, we omit the other normal relationship of the children loving the parents, which only expands the size of the relationship matrices without adding clarity.) The eldest child also has a significant responsibility in caring for the younger children. The mother is age 35 and in excellent health; the father is age 36 and in good health. Family B has an income of \$85,000 and is Presbyterian. (We are supposing here that these are the attributes of interest in this case. As discussed above, calculated similarity necessarily depends on the properties and relationships represented in the ASs.) This gives the Property and Relationship matrices shown in Figures 5 through 8:

	Age	Health
M_A	40	0.8
F_A	42	0.7
AC_1	12	1.0
AC_2	10	1.0

	Age	Health
M_B	35	0.9
F_B	36	0.8
BC_1	14	1.0
BC_2	8	1.0
BC_3	6	1.0

Figure 5. PA and PB for families A and B

	Income	Religion
A	\$75,000	C
B	\$80,000	P

Figure 6. Property Matrix Q for families A and B

	Rom.. Love	Par. love	Sib. love	Aca. comp	Resent	Affec. comp.	Care- taker
(M _A , F _A)	1.0						
(F _A , M _A)	1.0						
(M _A , AC ₁)		1.0					
(M _A , AC ₂)		1.0					
(F _A , AC ₁)		1.0					
(F _A , AC ₂)		1.0					
(AC ₁ , AC ₂)			1.0	1.0			
(AC ₂ , AC ₁)			1.0	1.0			

Figure 7. RA for Family A

Calculation of TD(A, B) proceeds as follows:

	Rom.. Love	Par. love	Sib. love	Aca. comp.	Resent	Affec. comp.	Care- taker
(M _B , F _B)	1.0						
(F _B , M _B)	1.0						
(M _B , BC ₁)		1.0					
(M _B , BC ₂)		1.0					
(M _B , BC ₃)		1.0					
(F _B , BC ₁)		1.0					
(F _B , BC ₂)		1.0					
(F _B , BC ₃)		1.0					
(BC ₂ , BC ₃)			1.0				
(BC ₃ , BC ₂)			1.0				
(BC ₃ , BC ₁)					1.0		
(BC ₂ , BC ₁)					1.0		
(BC ₂ , BC ₁)						1.0	
(BC ₃ , BC ₁)						1.0	
(BC ₁ , BC ₂)							1.0
(BC ₁ , BC ₃)							1.0

Figure 8. RB for Family B

- The normalized income values are $(75+1)/(80+1)$ and $(80+1)/(80+1)$, yielding values of 9.4 and 10.0. Stipulating for expository purposes the previously mentioned *a priori* ordinalization of the ethnographic categories “Catholic” and “Protestant” as a difference of 0.3 (on a 0—1 scale), and normalizing, we have

	Age	Health		Age	Health
M _A	9.5	9.0	M _B	8.4	9.5
F _A	10.0	8.5	F _B	8.6	9.0
AC ₁	3.0	10.0	BC ₁	3.5	10.0
AC ₂	2.6	10.0	BC ₂	2.1	10.0
			BC ₃	1.6	10.0

Figure 9. Normalized PA and PB for families A and B

$$PD(A, B) = \sqrt{(9.4 - 10.0)^2 + 3^2} = 3.06$$

- $(NA - NB)^2 = (5 - 3)^2 = 4$.

Figure 9 shows normalized PA and PB, with rows of PB re-ordered as described above:
yielding a constituent property distance

$$\begin{aligned}
 CPD(A, B) &= \sqrt{\sum_{i=1}^5 PD(A_i, B_i)^2} \\
 &= \sqrt{
 \begin{aligned}
 &(9.5 - 8.4)^2 + (9.0 - 9.5)^2 + \\
 &(10.0 - 8.6)^2 + (8.5 - 9.0)^2 + \\
 &(3.0 - 2.1)^2 + (10.0 - 10.0)^2 + \\
 &(2.6 - 1.6)^2 + (10.0 - 10.0)^2 + \\
 &(0.0 - 3.5)^2 + (0.0 - 10.0)^2
 \end{aligned}
 } \\
 &= 10.8
 \end{aligned}$$

The normalized relationship matrices, with rows of RB re-ordered as described above, are shown in Figures 10 and 11: (Rows are numbered for ease of reference.)

	Rom.. Love	Par. love	Sib. love	Aca. comp.	Resent	Affec. comp.	Care- taker
1. (M _A , F _A)	10.0						
2. (F _A , M _A)	10.0						
3. (M _A , AC ₁)		10.0					
4. (M _A , AC ₂)		10.0					
5. (F _A , AC ₁)		10.0					
6. (F _A , AC ₂)		10.0					
7. (AC ₁ , AC ₂)			10.0	10.0			
8. (AC ₂ , AC ₁)			10.0	10.0			

Figure 10. Normalized RA for Family A

	Rom.. Love	Par. love	Sib. love	Aca. comp	Resent	Affec. comp.	Care- taker
1. (M _B , F _B)	10.0						
2. (F _B , M _B)	10.0						
3. (M _B , BC ₁)		10.0					
4. (M _B , BC ₂)		10.0					
5. (F _B , BC ₁)		10.0					
6. (F _B , BC ₂)		10.0					
7. (BC ₂ , BC ₃)			10.0				
8. (BC ₃ , BC ₂)			10.0				
9. (M _B , BC ₃)		10.0					
10. (F _B , BC ₃)		10.0					
11. (BC ₂ , BC ₁)					10.0		
12. (BC ₃ , BC ₁)					10.0		
13. (BC ₂ , BC ₁)						10.0	
14. (BC ₃ , BC ₁)						10.0	
15. (BC ₁ , BC ₂)							10.0
16. (BC ₁ , BC ₃)							10.0

Figure 11. Normalized RB for Family B

The values in rows 1 through 6 of RA and RB are identical, rows 7 and 8 differ only on the Academic Competition column, and the remaining RA tuples have no matching RB tuple, so the sum

$$\sum_{j=1}^{MT} \sum_{i=1}^{K+L} w_i \times (RA_i (ta_j) - RB_i (tb_j))^2$$

$$= 6 \times 0^2 + 2 \times 10^2 + 8 \times 10^2 = 1000$$

Thus, the structural distance (dissimilarity) SD between families A and B

$$SD(A, B) = \sqrt{4 + 10.8^2 + 1000} = 33.48$$

and the total distance between the two,

$$TD(A, B) = \sqrt{3.06^2 + 33.65^2} = 33.79$$

Intuitively, the values of SD and TD are so close (0.9% of the TD) because the difference between the families based only on their income and religion, as shown in Fig. 5, is much less than the difference based on their respective structures.

In this example, we are considering structures whose only immediate constituents are individual persons. Customarily one considers persons to be indivisible, and so for the purposes of this example $SD(A_i, B_i) = 0$. The following section addresses how non-0 values of $SD(A_i, B_i)$ can be meaningful.

Consider now the distance between A and B', where B' is identical to B except that $B'C_1$ and $B'C_2$ do not resent and compete for affection with $B'C_3$. Rows 11 through 14 of RB would be missing, so the sum

$$\sum_{j=1}^{MT} \sum_{i=1}^{K+L} w_i \times (R_i(ta_j) - R_i(tb_j))^2$$

$$= 6 \times 0^2 + 2 \times 10^2 + 4 \times 10^2 = 600$$

$$SD(A, B) = \sqrt{4 + 10.8^2 + 600} = 26.84$$

and

$$TD(A, B) = \sqrt{3.06^2 + 26.84^2} = 27.01$$

Incorporating dynamics and personalities of family members

In the examples above, the members of the families are not further described, and the resulting structural similarity measures reflect only what might be called the “role structure” of the families. Families, however, are communities. The descriptions in the above examples are partial, not incorporating any of the practices in the families, either the mundane, such as making meals or cleaning rooms, or the very significant, such as accreditations and degradations, the practices often referred to as “family dynamics.” As we have discussed earlier, practices are P-type constituents in a fuller Aspect Specification of a community, and thus easily incorporated in more extensive and informative similarity calculations.

We noted earlier that the term “aspect specification” was chosen to avoid the connotation that constituents are objects. Members of a family are persons, and here we see an example of the benefit of the less-connotation-laden term: it is easy to see how we can extend the Specifications of the family to include not only family structure and dynamics but personality characteristics of the members. Personality characteristics are, as discussed earlier, specifiable with type-S Aspect Specifications. This means all knowledge of the members’ traits, attitudes, styles, abilities, and all other personal characteristics may be formally included in the specifications of the families, and used in the multi-level measurement of the complexity of the families and differences between them.

An example from chemistry

In this illustration, we move to an entirely different kind of aspect, simple molecules, as examples of simple physical structures. We consider the water molecule (H_2O) and the ammonia molecule (NH_3), which contain three and four constituent objects, respectively, that are at particular angles and distances from their central atom (O and N, respectively). We use two common properties of the

	Atomic weight	Electronegativity
O	16	3.44
H	1	2.2
H	1	2.2

	Atomic weight	Electronegativity
N	14	2.04
H	1	2.2
H	1	2.2
H	1	2.2

Figure 12. A and PB for H_2O and NH_3

	D	α
(O, H)	95.84	104.5
(O, H)	95.84	104.5

	D	α
(N, H)	101.7	107.8
(N, H)	101.7	107.8
(N, H)	101.7	107.8

Figure 13. RA and RB for H_2O and NH_3

constituents: atomic weight and electronegativity; and one property of the overall molecules: dipole moment. The dipole moments of water and ammonia are 1.85 and 1.42 respectively; the property and relationship matrices P and R are shown in Figures 12 and 13.

Normalizing P and R as before, Formula (6) gives:

$$SD(H_2O, NH_3) = \sqrt{1^2 + 3.4^2 + 14.2^2} = 14.62$$

and

$$TD(H_2O, NH_3) = \sqrt{1.5^2 + 14.62^2} = 14.69$$

An example from cell biology

Jeffrey (2009) uses Aspect Specifications and Formula (6) to formally specify two cellular structures, eukaryotic and prokaryotic ribosomes, and calculate their similarity. Information represented in the ASs is taken from a figure in a classic molecular biology text (Alberts *et al*, p. 343, Fig. 6-63), entitled “A comparison of the structures of prokaryotic and eukaryotic ribosomes.” The figure

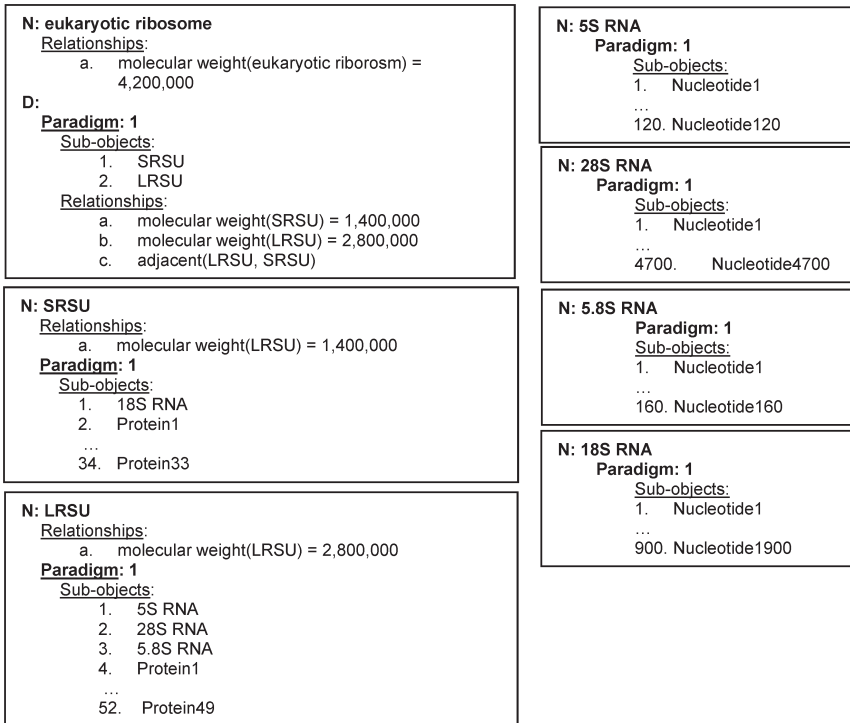


Figure 14. Aspect Specifications for the Eukaryotic Ribosome

shows that each ribosome has two components, the Large and Small Ribosomal Subunits. The prokaryotic LRSU has 2 RNA molecules and 34 proteins, and SRSU has one RNA molecule and 21 proteins; the eukaryotic LRSU has 3 RNA molecules and 49 proteins, and the SRSU has 1 rRNA molecule and 33 proteins.

To represent these facts about the eukaryotic ribosome in AS format, we need 7 Aspect Specifications, one for each object or sub-object with named components: the ribosome, LRSU and SRSU, and 5S, 28S, 5.8S, and 18S rRNA. These are shown in Figure 14:

Using Formula (6), including the similarity of corresponding constituents in the two kinds of ribosome,

we find that the structural distance between them is:

$$SD(A, B) = \sqrt{0 + 31.1 + [0.7(1509.8 + 360.1)]} = 36.61$$

and the total distance is:

$$TD(A, B) = \sqrt{16.38 + 36.61^2} = 36.83$$

This example illustrates the practical impact of the robustness of Aspect Specification in the face of incomplete information. Fig. 13, and therefore the Specifications taken from it, is conspicuously incomplete, both at the levels shown and because it lacks further Specifications of the rRNA components and proteins (about which a good deal is known). The similarity calculation nevertheless can be carried out without difficulty. The calculated similarity can be expected to change as more detail is added, in accordance with common use: the more detail included in a description of two things, the more possibilities there are for greater difference to be

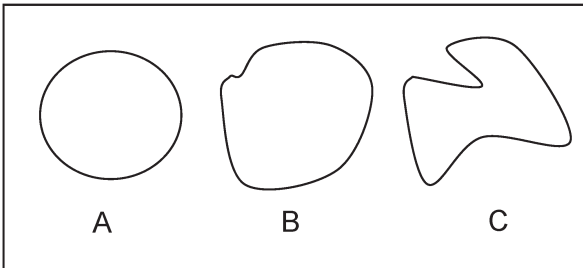


Figure 15. Three objects with different shape

identifiable

This example also illustrates a central theme of this article: the capability of formalizing and quantifying the visual and verbal information found in the figure from Alberts *et al*, a portrayal of structure that is extremely common.

Property distance revisited

Formulas (2) and (3), PD(A, B) and CPD(A, B), define property distance based on the values of other specified properties, using the Euclidean formula. There are instances of property distance, however, in which we have no such other properties to use to calculate the distance. For example, consider the three objects pictured in Figure 15:

Objects A and B are observably more similar in shape than are A and C, but we cannot use the Euclidean formula on properties to calculate these differences.

We therefore generalize Formula (2) to allow for any valid mathematical distance measure $d(A, B)$, as follows: the Property Distance between A and B is defined as

$$PD(A, B) = d(A, B)$$

and

$$CPD(A, B) = \sqrt{\sum_{i=1}^M (d(A_i, B_i))^2} \tag{7}$$

In the case of the three objects A, B, and C in Fig. 14, for example, this allows us to use the well-known mathematical measure of shape similarity, the Hausdorff distance (Wikipedia, 2009c), in similarity calculations.

Future Development

The formulations of structure, structural complexity, and structural similarity presented here constitute formalizations of fundamental concepts in extremely wide use in virtually every branch of the sciences and technology. We suggest here only a few of the newly possible lines of development.

Perhaps the most obvious further work is the empirical verification of Formulas (1) and (6), and the above-mentioned systematic investigation of the concept of complexity based on ASs.

Aspect Specifications have been used in several ways, in the form of Process Unit knowledge bases for a number of computer systems (Jeffrey & Putman, 1983), Jeffrey *et al*, 1989), and appear robust both practically and conceptually. The basis for the complexity and similarity formulas is sound, but this by no means ensures that the values derived from them will correlate highly with actual human judgments of these attributes. Verification of the appropriateness of the formulas, and of appropriate values for ϵ and δ , is clearly needed.

In the field of biology, there are large databases representing the sequence of nucleic acids that make up a gene, or amino acids that make up a protein. These databases are extremely valuable in biological research, largely because algorithms to define and measure sequence similarity have been defined and programmed. The resulting computer systems allow researchers to search large databases for sequences similar to one of interest, to varying degree, and this capability is at the heart of many research efforts in biology. A sequence of constituent nucleic or amino acids is a very special case of an Aspect Description: the Constituents are the component molecules, and the single relationship is that of adjacency. The formulation of structural similarity in Formula (6) is the full generalization of sequence similarity to the entire set of relationships and constituents, at any level of detail, of the DNA or protein, and makes possible computer systems that can search a database for molecules similar in structure to one of interest, based on the relationships between constituents that a researcher finds of interest.

In a variety of fields dealing with organizations, including organizational psychology and consulting, researchers and practitioners often rely on concepts of organizational complexity and similarity, and assessments of them, to analyze organizations and identify problems and potential improvements. Use of terms such as “complexity of organizations” is extremely widespread, and attempts to draw conclusions about organizational effectiveness based on ideas of complexity are commonplace (Anderson 1999, Axelrod & Cohen 2000). It seems likely that the formulations developed here will lead to a number of interesting developments in this field, due

to the novel capability of rigorously defining and measuring these virtually ubiquitous concepts.

Organizations have long been compared to mechanisms and organisms. As useful as that analogy has been for developing insights and approaches, it has until now only been possible to use it in that way. We can now move beyond that, to rigorously and precisely articulate and measure the similarity between organizations and organisms. It seems particularly valuable in this regard that Formula (6), the similarity measure, is responsive to differences in structure at all levels of detail.

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Elucidating *Actus Reus* and *Mens Rea*: A Descriptive Psychology Perspective

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Abstract

The legal concepts *actus reus* and *mens rea* are foundational in determinations of culpability and guilt for criminal acts, thereby affecting many lives in our society. This paper begins with a brief overview of the concepts of *actus reus*, and *mens rea*, followed by presentation of several resources from Descriptive Psychology to elucidate these concepts and enhance our understanding. Resources include the concepts of Persons and Deliberate Action, a parametric analysis of Behavior, and forms of behavior description related to these parameters. The concepts *actus reus* and *mens rea* are elucidated using the forms of behavior description. The analysis demonstrates that to a large extent, the question “Was the person guilty?” translates to the question “*What* deliberate action was it?”

Volumes have been written about *actus reus* and *mens rea* because of the enormous significance that these concepts have for how we treat people accused of criminal acts. A great deal hinges for individuals, families, and communities on the shared understanding of human behavior reflected in these notions. This paper elucidates the concepts from the perspective of Descriptive Psychology.

Descriptive Psychology contrasts with theories that treat behavior as if it merely consisted of the *observable* aspect or *motoric* aspects of a behavior. It also contrasts with theories that view behavior as being deterministically controlled by historical antecedents, or that view man as fundamentally irrational.

Like Law, Descriptive Psychology is anchored on broader concepts of behavior that include motivational and cognitive parameters. Both make distinctions among personal characteristics of the individual engaged in the behavior, and include the circumstances as relevant and important in understanding the particular behavior that occurred. Both highlight the expectation that persons are generally assumed to be responsible for their actions, and that society has a crucial stake in accurate assessment of persons who may be unable to control their behavior and pose a danger to others and/or to themselves.

It is not an accident that Law pragmatically has found it important to make these distinctions. Unfortunately, in the general psychological literature, Law has not had much to draw on by way of resources to provide a systematic framework for understanding the behavior of persons as persons, as opposed to, e.g., as organisms, black boxes, etc. The general psychological literature reflects a range of misconceptions about the nature of behavior and in what sense a given behavior is chosen or in what sense a person is aware of what he is doing (i.e., is cognizant of what behavior he is engaged in).

In contrast, Descriptive Psychology is designed to provide systematic access to all the facts and possible facts about behavior, persons, the real world, and the relationships among them. It provides a conceptually sound framework for making and mapping out whatever useful and important distinctions need to be made, and it can facilitate this enterprise and enable us to make distinctions more clearly. (It is important to emphasize that Descriptive Psychology is a resource for such enterprises, not a solution.)

This paper provides an example of using Descriptive Psychology as a legal resource. It begins with a brief overview of the concepts of *actus reus*, and *mens rea* (cf., McKee, pp. 2-4, 8-9). Then the

concepts of Persons and Deliberate Action, as conceptualized in the Descriptive Psychology system, are introduced. A parametric analysis of behavior is presented, and forms of behavior description are discussed. The concepts of *actus reus* and *mens rea* are elucidated using the forms of behavior description rather than using terms such as “voluntarily” and “capable of” which have long and slippery philosophical histories.

Actus Reus and Mens Rea

According to Grisso (1988), “The law has long recognized two concepts on which responsibility for criminal actions depend: *actus reus*, requiring evidence that the accused person engaged in the alleged act; and *mens rea*, requiring a determination that the accused person manifested the requisite mental state to have intended committing the act or to have foreseen its consequences” (p. 4).

What constitutes an act is a matter of some discussion. *Actus reus*, the guilty act, is not simply the performance, e.g., thrusting a knife. Rather, to be construed as a “guilty act” the circumstances and consequences of the act must also be considered. Thrusting a knife does not constitute a criminal act. Thrusting a knife at someone (circumstances) resulting in the other’s injury (consequences) may be a criminal act.

Actus reus may also be an omission, a failure to act. Standing alone on a dock is not a criminal act. However, a healthy, unimpaired adult, standing alone on a dock watching a two year old child drown three feet away, may, under some circumstances (e.g., where there is a “duty to act”), be charged with criminal negligence. *Actus reus* is generally defined by overt, publicly observable variables: the act, the environmental context, and the result of the act.

Mens rea, the second component of a crime, comprises what some call the internal dimensions of the actor. *Mens rea*, the “guilty mind,” is the actor’s intent, the state of mind to do the *actus reus*, which the law prohibits. *Mens rea* is not directly observable, but is

“inferred” from the person’s acts (and omissions) and speech before, during and after *actus reus*.

Intent is distinguished from motive. Motive is what prompts a person to act (or fail to act), while intent refers simply to the actor’s state of mind at the time of the crime. For example, A and B each rob an abortion clinic of \$500. A uses the \$500 to buy drugs which he then ingests. B donates the \$500 to an anti-abortion advocacy group. Despite quite different motives, A and B’s *mens rea* are equivalent: an intent to deprive the owner of his money. (But see below.)

In addition to being used in a very narrow sense as the intent to commit a specific crime, *mens rea* has also evolved into a broader use as a state of mind of general culpability or liability, an awareness of right from wrong (Miller, 2003, p. 213). To acknowledge the complexity of the construct of *mens rea* and its applicability to human interactions, the American Law Institute identifies four distinct states of culpability: purposely, knowingly, recklessly, and negligently. According to Loewy (1975), a person acts “*purposely* when he consciously desires his conduct to cause a particular result; *knowingly* when he is aware his conduct is practically certain to cause a particular result; *recklessly* when he is aware of a risk that his conduct might cause a particular result; and *negligently* when he should be aware of a risk that his conduct might cause a particular result” (p. 117).

To illustrate these states of mind, suppose the *actus reus* is a person A shooting a gun. A would act purposely if he pointed at and then shot person B at a distance of 18 inches. A would act knowingly if he shot at (and hit) B “just to scare him” at a distance of 20 feet. A would act recklessly if he shot the gun aimlessly at a party injuring B. A would have acted negligently if, while cleaning his loaded gun, the weapon discharged and A’s roommate was injured.

A person is presumed to be legally responsible for his or her behavior if, at the time of the offense, the person was capable of voluntarily performing the act, *actus reus*, and capable of forming the intent to act, *mens rea* (cf., McKee, 1994). The concept of “capable of” is discussed later in this paper. It may be noted that for

some crimes (known as “specific intent crimes,” murder being the most commonly known, but rape, arson, and any attempt crime also fall into this category), *mens rea* requires both the intent to perform the act and the intent to achieve a specific result. In order to obtain a valid conviction, the prosecution is required to prove both *actus reus* and *mens rea* beyond a reasonable doubt.

A person may be excused from conviction and punishment if the defense successfully argues that either *actus reus* or *mens rea* was sufficiently impaired by a mental illness, mental defect, or other condition beyond the control of the defendant. A related defense of this type is infancy, i.e., the defendant was too young (generally under age 7) to be capable of forming *mens rea*, a criminal intent.

Generally in criminal law, disorders such as psychosis, manic-depressive illness, and mental retardation are considered to affect *mens rea*. For example, a person suffering from schizophrenia, paranoid type, may have a delusion that a neighbor is attempting to kill him and as a result assaults the neighbor without provocation. Expert testimony showing both that the assault was initiated by a persecutory delusion and that it negated his belief that he was acting wrongfully, would likely result in a verdict of “not guilty by reason of insanity.”

Some mental disorders, however, are considered to affect *actus reus*, the voluntariness of the person’s behavior. In certain cases, the legal defense of automatism may be argued. The incapacitating conditions may include sleepwalking disorder, epilepsy, anoxia, and certain dissociative disorders such as psychogenic fugue, depersonalization, and multiple personality (also called “dissociative identity”) disorder. For example, if an epileptic patient hits another during a seizure, expert testimony that the act was not under the defendant’s voluntary, conscious control would be the basis of the defense. That is, the defense would argue: it is not an *actus reus*. (It was not purposeful, so there can be no criminal act.)

In regard to defenses based on insanity, the statutes defining insanity vary widely from state to state and a thorough discussion of the defense is beyond the scope of this paper. Many insanity rules

exist: the M’Naghten test, the irresistible impulse test, the Durham rule, the ALI rule, and the *mens rea* test. The rules share three elements: (a) there must be a mental disease or disorder; (b) there must be legally-relevant impairments in functioning; and (c) there must be a clear and direct causal relationship between (a) and (b).

Persons and Deliberate Action

What do we mean by “persons”? In Descriptive Psychology, what we mean is given by the following definition: “A person is an individual whose history is, paradigmatically, a history of deliberate action.”

What is “Deliberate Action”?

Ossorio (1985) writes:

In deliberate action a person engages in a given behavior, B; further, he knows that he is doing B rather than other behaviors which he distinguishes and he has chosen B *as* B from among a set of distinguished behavioral alternatives as being the thing to do. In the vernacular, we might say, “He knows what he’s doing and is doing it on purpose.” Deliberate action does *not* imply deliberation or prior thought about what to do, and, in fact, almost all deliberate action is spontaneous, unrehearsed, and unreflective.

Deliberate action is archetypal for persons. If persons did not normally have the ability to distinguish what they were doing and to do it on purpose, we would not have the concept of person that we in fact do. The capability for deliberate action is not merely an expectation; it is a social and legal requirement. Few people would argue with the principle that a person

who either doesn't know what he is doing or can't control what he does is a danger to himself and others and needs some form of custody. (p. 154)

Several clarifications are useful. Ossorio (1985) points out that the definition of a Person, i.e., an individual whose history is, paradigmatically, a history of deliberate action, reflects several facts.

The first is that engaging in deliberate action is *conceptually* the essential characteristic of a person. The second is that persons do not literally spend their entire lives engaging in deliberate action. The third is that, since it is conceptually essential, some form of explanation is called for and is available for those cases and those times when a person is not enacting a deliberate action. (Most commonly, the explanation refers to a particular state such as being asleep, being unconscious, being delirious, and so on.) (p. 155)

Ossorio (1981) has also commented that:

The paradigm case of human behavior is not merely a deliberate action in which the distinction between Intentional Action B and some other intentional action M is involved. Rather, that case is found where the individual, A, *engages* in B *because* it is B, rather than M. It is in this sense that we regard human beings as having freedom, choice, and the correlative responsibility in regard to their behavior. (p. 18)

It is important to reiterate that Deliberate Action does not imply deliberation. Moreover, Deliberate Action is a special case of Intentional Action, which will be presented next.

A Parametric Analysis of Behavior

The parametric analysis of Behavior as Intentional Action and its articulation as a calculational system provides the systematic framework for the range of behavior descriptions available to us. This is a major resource and contribution of Descriptive Psychology to our

task. It helps us articulate distinctions and systematize patterns and connections which would otherwise be difficult to make or organize.

The concept of intentional action is articulated not by means of a definition, but rather by means of a parametric analysis:

$$\langle B \rangle = \langle IA \rangle = \langle I, W, K, KH, P, A, PC, S \rangle$$

The parameters of intentional action are the ways in which one particular behavior can be the same as or different from another behavior as such. In this formula,

- B Behavior (Instances of behavior are identified directly by locutions in ordinary language.)
- IA Intentional Action (The technical designation for Behavior under the present parametric analysis)
- I Identity (Refers to the identity of the individual whose behavior it is; values of this parameter are given by names or individuating description.)
- W Want = The “motivational” parameter (Values of this parameter are given by specifying states of affairs as being wanted.)

Ossorio (1972, p. 16) has noted that the motivational parameter is what conceptually defines the unit of behavior. When the state of affairs that is wanted becomes the state of affairs that is achieved, that behavior is ended. Notice that in situations with unintended consequences, the unit of behavior that the individual is engaged in as established by what he wanted, is probably different from that identified by a different Observer-Describer who is concerned with the (unintended) consequences.

- K Know = The cognitive parameter (Values of this parameter are given by specifying states of affairs as being distinguished or conceptualized.) (This includes distinguishing what is relevant to the behavior in the circumstances.)

Anything that is wanted (cf., the W parameter) will also show up under K, since for something to be wanted, it is also distinguished.

KH Know How = The competence parameter (Values of this parameter are given by specifying prior states of affairs as a relevant learning history.)

Ossorio (1972, p. 16) points out that “The function of the Know How parameter is precisely to exclude accidental happenings from the range of instances of intentional action.” Notice that, for any given behavior, if we could not specify that the behavior engaged in was one which the person knew how to do or had the relevant learning history to enable him to do, it would be incorrect to say that the person engaged in that deliberate action (i.e., in that behavior under a deliberate action description). Cf., “The two year old’s arm bumped the rook moving it over one square” versus “The two year old just put me in checkmate.” The latter could not be correct as a deliberate action, since the two year old does not have the requisite Know How, but could be correct under an achievement description.

P Performance = The process, or procedural parameter (Values are given by specifying a process, e.g., he pulled the trigger, or, he shot the arrow.)

A Achievement = The result, or outcome, parameter (Values are given by specifying events and states of affairs.)

When this is the only parameter specified (i.e., the values of all the other parameters are deleted), this form of behavior description is called an Achievement Description. The unspecified parameters are represented by Θ ’s in the formula below.

$$\langle B \rangle = \langle \Theta, \Theta, \Theta, \Theta, \Theta, A, \Theta, \Theta \rangle$$

Achievement Description

One of the functions of Achievement Descriptions (specifying this parameter exclusively) is to enable an observer to specify a given result as unintended.

PC Person Characteristics (Values are given by specifying personal characteristics of which the behavior is an expression.)

S Significance (Values are given by specifying behaviors or behavioral patterns engaged in by means of the behavior in question, i.e., “doing X by doing Y.”)

One of the standard heuristics used in Descriptive Psychology for explaining Significance (cf., Ossorio, 1986) is the guy standing by the farmhouse in the rolling English countryside who is saving the nation (S) by moving his arm up and down (P). Actually, he’s got his hand around a pump handle, so he’s pumping the pump. (Why is he doing that/what is he doing by doing that?) There’s water in the pump so he’s pumping water, and the pump is connected to the house, so he’s pumping water into the house. There are people in the house drinking the water, so he’s pumping the water to the people in the house. There is poison in the water, so he’s poisoning the people in the house. And the people in the house are conspiring to overthrow the government, so he’s really saving the nation.

Taking it from “top-down,” he’s saving the nation by poisoning the people in the farmhouse (who are plotting to overthrow the government), and he’s doing that by pumping (poisoned) water to them, and he’s doing that by pumping the pump, and he’s doing that by moving his arm up and down. Going from the top down, the more specific, concrete behaviors are ways of saving the country. They are ways of implementing what is wanted. From the bottom up, you get the significance of why he was doing what he was doing. All are correct descriptions of what it is he is doing in this example, and it reminds us that people are usually doing more than one thing at the same time (Ossorio, 1986).

Forms of Behavior Description

The use of the concept of Intentional Action as a calculational system (via deletion, substitution, and reduction operations) enables us to provide various forms of behavior description, including descriptions of behavior where we do not know/cannot specify/do not choose to specify the value of one or more parameters. The Achievement Description mentioned above is one example

of how this schema offers us a means of clarifying our discussion of behavior when many locutions in our ordinary language do not distinguish clearly what the speaker meant.

Returning to the case of Deliberate Action descriptions, these are used to represent behavior in which a person not merely distinguishes among behaviors but also chooses among them. That is, he acts on grounds (reasons) for doing one thing rather than another. The special case of Deliberate Action is represented via the Substitution operation as:

$$\langle B \rangle = \langle I, \langle B \rangle, \langle B \rangle, KH, P, A, PC, S \rangle$$

Deliberate Action Description

where the Behavior engaged in is also the behavior that was distinguished (K) and chosen (W) (hence the B also appears in the K and W parameters). The choice of behavior also reflects one's Person Characteristics (PCs).

Deliberate Action is the paradigm case of human behavior; however, for purposes of the Law, it appears that persons are viewed at a minimum under an Agency Description. In an Agency Description, the parameters of behavior specified are W, K, KH, P, and A.

$$\langle B \rangle = \langle \Theta, W, K, KH, P, A, \Theta, \Theta \rangle$$

Agency Description

An Agency Description of Behavior does not imply that these are the only parameters there are, but that these are the ones, at a minimum, that I'm talking about. An Agency Description enables us to talk about someone engaging purposely in instrumental behavior, i.e., wanting, distinguishing, having the competence, and engaging in a process to bring about some (desired) outcome. An Agency Description portrays the sense in which behavior is instrumental and the person is the agent of what he does. If we consider $\langle B \rangle$ as the criminal act, e.g., robbing the abortion clinic of \$500, what needs to be shown according to the law, is that $\langle B \rangle$ (as stated in

the indictment) *is* the person’s behavior, at least under an Agency Description.

This may approximate what is meant by a person’s behavior being “presumed to be voluntary and deliberate,” but without making other problematic assumptions of the nature of behavior in general. It appears that the way in which the Law means that our behavior is voluntary is that it is not involuntary, and persons choose to do X, making certain distinctions, and choosing behavior X from among a range of other possible behaviors.

Using the parametric analysis of behavior, we can see that what is left out of an Agency Description is the Identity, Person Characteristics, and Significance parameters; that is, who did it, what person characteristics the behavior is an expression of, and what the person’s motive was, i.e., what he or she was doing by doing that. Thus, the Agency Description is well-suited for giving descriptions that still make sense as being deliberate/purposeful, but without having to include certain aspects of the individual’s historical particulars of engaging in that behavior.

Actus Reus

As noted above, *actus reus*, the “guilty act,” does not consist of the specific performance alone, e.g., thrusting a knife. That is, *actus reus* is not merely the procedural aspect of behavior (the P alone) nor the act under a Performance description.

$$\langle B \rangle = \langle \Theta, \Theta, \Theta, \Theta, P, A, \Theta, \Theta \rangle$$

Performance Description

(The A is always included along with P in a Performance Description because the occurrence of any performance is also an accomplishment, just as whatever is included under the W parameter also shows up under K.)

To be construed as a “guilty act,” the circumstances and consequences of the act must also be considered. Thus, *actus reus* involves the parameters K, P, and A.

$$\begin{array}{l} \langle B \rangle = \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Actus reus:} \quad K, \quad P, A \end{array}$$

Environmental factors are represented here by K, since, for them to be operative, they would have to be distinguished by the actor.) This is very close to an Activity Description of the behavior if the behavior is considered to be non-accidental.

$$\begin{array}{l} \langle B \rangle = \langle \Theta, \Theta, K, KH, P, A, \Theta, \Theta \rangle \\ \text{Activity Description} \end{array}$$

Actus reus appears to be noncommittal both with regard to whether the act was an expression of skill/ability (KH), and with regard to what is wanted or why (W). It merely addresses the activity engaged in (P), the outcome of P (A), and the presence of additional circumstances (K), which presumably the perpetrator also distinguishes. (It is interesting that specifying these same parameters, K, P, and A, also corresponds to a Stimulus-Response Description.)

The committing of a crime through failure to act may also be an instance of *actus reus*. The parameters help make this less mysterious. Rather than saying that non-action is an action, specifying the K parameter makes clear what distinctions the Actor is making in doing P, when societal standards obligate him to do Z under those circumstances, or not to have otherwise made the gross error of judgment/behavior that he did. To address crimes of omission, we return to an Agency Description of what behavior the person was engaged in, and the Law requires that there be a specified standard that his behavior was in violation of, which then caused injury to one or more members of the community. The failure to act cannot be attributable to some extenuating circumstance. (Note that the example above specifies a “healthy, unimpaired adult standing alone on a dock...” etc.)

Both the committing of an act and omitting to act insofar as these result in a crime have in common their parallel to the analysis of a successful degradation ceremony presented by Ossorio

(1971/1975/1978/2005, pp. 121-122, citing Garfinkel, 1956). A successful degradation ceremony involves six necessary conditions:

1. There is a community of individuals who share certain basic values such that adherence to those values is a condition for retaining good standing in the community, i.e., for being fully and simply “one of us.”
2. In principle, three members of the community are involved, i.e., a Perpetrator, a Denouncer, and (some number of) Witnesses [to the degradation ceremony in the sense of point 3, below] (e.g., the Defendant, the Prosecutor, and the Judge/Jury).
3. The Denouncer and the Witness act as members of the community and as representatives of the community. That is, their behavior reflects their good standing in the community, and they act in the interest of the community rather than out of merely personal interest.
4. The Denouncer describes the Perpetrator as having committed a certain Act.
5. The Denouncer redescribes the Act (if necessary) in such a way that its incompatibility with the community’s values follows logically.
6. The Denouncer presents (implicitly or explicitly) a successful case for judging that the Perpetrator’s engaging in the Act as redescribed is a genuine expression of his character and *is not to be explained away by reference to chance, accident, coincidence, atypical states, etc.* [italics, bracketed clarification, and example in 2 added].

In both cases, the community has a crucial stake in its members behaving according to some basic standards, and it requires that its members be able to make minimally competent judgments or risk sanctions and/or legal consequences. Under an Agency Description, the individual’s culpability can be established, provided there is a clear community standard which is grossly violated, whether by

commission or omission of an act, if such behavior directly causes harm to a community member.

Mens Rea

As noted previously, the commission of a crime is considered to have two components. How might Descriptive Psychology elucidate the second aspect, the concept of *mens rea*, the “guilty mind”?

Mens rea is the actor’s intent. Intent is given by the W parameter, and hence also appears in the K parameter, since one cannot want or try to do/get something if he or she cannot distinguish it.

$$\begin{aligned} \langle B \rangle &= \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Mens rea:} & \quad W, K \end{aligned}$$

Any underlying motive is given by the S parameter.

$$\begin{aligned} \langle B \rangle &= \langle I, W, K, KH, P, A, PC, S \rangle \\ \text{Motive:} & \quad S \end{aligned}$$

Recall that Significance, the motive, does not appear under an Agency Description of Behavior. Indeed, in the example of two people having quite different motives for taking the money from the abortion clinic, both A’s and B’s *mens rea* are equivalent. By virtue of the fact that the criminal act of robbing the abortion clinic is considered under an Agency Description, the “motive,” S, i.e., why they did what they did, can indeed be considered as something separate from the “criminal behavior.”

$$\begin{aligned} \langle B \rangle &= \langle \Theta, W, K, KH, P, A, \Theta, \Theta \rangle \\ \text{Mens rea I:} & \quad W, K \\ \text{Motive:} & \quad S \end{aligned}$$

(KH is taken for granted in that the action is considered to be non-accidental, albeit we do not have any good or systematic way of specifying the value of KH for any given behavior.)

One further comment on this first of two uses of the concept of *mens rea*. Since something that is wanted (W) is also distinguished (K), this connection alleviates the need to necessarily determine

whether someone was “conscious” of breaking the law at the moment the event was occurring. Wanting X, seeing an opportunity to get it, and acting on this, is different from talking of consciousness or awareness of, or desiring to break the law to obtain X, etc. Seeing the opportunity to obtain something I want (K) gives me a reason to try to get it (Maxim 2). If I steal rather than purchase a chocolate bar, insofar as intent is concerned, it is sufficient to know that, at the time I took it, I wanted the chocolate, not that I desired at that moment to break the law, or to deprive the store owner of his merchandise. K includes my knowing that it’s against the law to steal and conceal a chocolate bar, but breaking the law doesn’t have to be either my intent or what I’m “conscious of.”

The contrast here is between “knowing” and “being conscious of.” For example, I “know” that Beijing is the capital of China, but I am seldom “conscious” of the fact. That I know it means that it is available for my behavior and that I can act on it. If there is behavior that requires that I know that Beijing is the capital of China, I can make use of that at any time. It is different from what I am conscious of; I couldn’t possibly be conscious of all the different things that I know. Nonetheless, what someone knows is still available to them, whether or not they are conscious of it. So long as I know that it is against the law to take a chocolate bar from the store without paying for it, I didn’t have to be conscious of/aware of breaking the law at that time. The normal test for whether someone knows that doing this is against the law is to ask them. One can also use a range of other clinical assessment skills to evaluate if the person charged is able to tell right from wrong, etc.

The second, broader notion of *mens rea* includes not merely the person’s intent (the W and K parameters), but also “a state of mind of general culpability or liability, an awareness of right from wrong.” This seems to incorporate the parameter of the actor’s Person Characteristics (PC), and corresponds to his behavior under a broader, Deliberate Action description. To establish the presence of a “guilty mind,” one needs to know what behavior the actor was engaging in. From the Actor’s perspective, what was he really doing?

 = <I, W, K, KH, P, A, PC, S>
Mens rea 2: I, W, K, KH, P, A, PC, S

Mens rea in the broader sense, corresponds to , according to the Observer’s description of the Actor’s behavior. It is more in this broader sense of *mens rea* that what is going on in my mind at the time of the crime may be relevant.

Concerning culpability, the Law has delineated four seemingly distinct states as being useful distinctions: acting purposely, knowingly, recklessly, and negligently. I would paraphrase this endeavor as, “In what sense am I responsible/liable for the consequences of my behavior, i.e., for having acted as I did?”

In the case of behaving purposely, what is purposeful is acting in a way to get something I want which happens to involve committing a crime, and that knowledge doesn’t deter me from doing it. It’s not that my object (“purpose”) is to commit a crime, but rather if I succeed in achieving A which is what I want, I will also be committing a crime, and that doesn’t make enough difference to me to alter my behavior.

In the cases of knowingly and recklessly, there are diminishing likelihoods that the doing of P causes an outcome A which is a crime. In the case of knowingly, doing P “almost certainly” causes A, and in the case of recklessly, there is a “substantial and unjustifiable risk” that P brings about A.

In all three of these cases: Purposely, Knowingly, and Recklessly, the perpetrator had the requisite knowledge (PC), but he didn’t act appropriately on it. There is knowledge, K, that doing P is against the law (in the case of “purposely”) and/or that there is substantial risk of harming someone, but the person does not value that sufficiently (PC) and engages in P anyway. Even though outcome A (breaking the law) may be unintended or incidental to my getting what I want, my values, attitude, etc. are such that these reasons don’t count enough, and that is a violation of a shared community standard which says that I should care, and act accordingly.

In the case of Negligence, it may be a matter of something I knew and should have cared enough to act on; or it may be something I

didn't know and should have (PC). In order to be fully and simply "one of us," you have to know these things, e.g., cleaning a gun is dangerous, and not be willing to place others at risk. This kind of knowledge and action is a societal requirement reflecting a shared community standard.

A Double Negative Formulation

Previously, it was noted that a person is presumed to be legally responsible for his or her behavior if, at the time of the offense, the person was capable of voluntarily performing the act, *actus reus*, and capable of forming the intent to act, *mens rea*. To obtain a valid conviction, the prosecution must prove both *actus reus* and *mens rea* beyond a reasonable doubt. What does it mean to say that, at the time of the offense, someone was capable of voluntarily performing the act and capable of forming the intent to act?

This can be treated as a double negative formulation, i.e., the person was *not incapable* of voluntarily performing the act (e.g., by virtue of being hypnotized), and the point is not to establish that the act was voluntary so much as that it was not involuntary. Per Ossorio (personal communication, August 29, 1994), the "... evidence that I was capable of voluntarily performing the act is the absence of evidence that I was incapable of doing it..." He added, "...if it looks like a straightforward Deliberate Action, the burden of proof should be on the claim that it isn't." This is consistent with the law, in that a person's "capability" to form intent is a question for the defense team to address in their affirmative defense of insanity.

Insofar as *actus reus* only involves parameters K and P, with result, A, the clause "capable of voluntarily performing the act" looks like an effort to incorporate the KH parameter in the law in order to identify K, P, and A as a non-accidental act of behavior, and to present the actor as an organism able to make choices (as opposed to the act representing the occurrence of a bodily movement with an associated outcome, or perhaps a mere stimulus-response sort of event produced by a decorticate organism).

Likewise, “capable of forming the intent to act” appears to be a way of *ruling out* that a person was *impaired/incapable* of making distinctions required under parameters W and K including the connection between P and A (cf., infancy defense, delusions, etc.). One must be able to understand that doing P brings about A.

Conclusion

In elucidating the concepts of *actus reus* and *mens rea*, we have used a variety of resources from Descriptive Psychology. Some of the ideas presented above can be summarized in the following schematic:

	< B1 > = < IA > =	< I, W, K, KH, P, A, PC, S >
Agency Description:	< Θ, W, K, KH, P, A, Θ, Θ >	
<i>Actus reus</i> :	K,	P, A
Motive:		S
<i>Mens rea</i> 1 (Intent):	W, K	
<i>Mens rea</i> 2:	I, W, K, KH, P, A, PC, S	

In other words, to a large extent, the question of “Was the person guilty?” translates to the question of “What deliberate action was it?”

The implications of this formulation for a defense are straightforward. The goal of the defense (team) is to establish parametric values which are *incompatible* with B1, e.g., the criminal act of robbing the abortion clinic. This includes any/all of the Agency Description parameters, including KH. (The flailing about of an epileptic, sleep walking, or acting on a hypnotic suggestion, are not the exercise of a skill.) Most importantly for psychologists, it *also* includes the values of PC, the Person Characteristic(s) of which the supposed criminal behavior is an expression. This of course includes “mental defects” or states of mind (cf., a fugue state, psychosis) that would support an insanity or diminished responsibility defense.

In other words, to undo the ascription of criminality, presented by the prosecution under an Agency Description, the defense is seeking exculpability via establishing values of any of the Deliberate Action parameters that would be incompatible with the defendant's having committed this act under a Deliberate Action description. (For example, "Yes, he took the money, but he believes he owns the clinic, the hospital, and the city, and that the money belongs to him.")

Note in conclusion that paradigmatic cases of defenses, including insanity, provide examples of impairment in the W, K, and KH parameters:

Defense based on *actus reus*:

automatism (KH)

(the act was not purposeful)

Insanity based on *mens rea*:

cognitive prong: M'Naghten (K)

Insanity based on *mens rea*:

volitional prong: Irresistible Impulse (W)

Finally, it may be noted that there are many other resources that Descriptive Psychology offers to our understanding of behavior, including criminal behavior. These include its elaboration of the Person Characteristics parameter of behavior; the PC-C model representing the relationship of Person Characteristics, Circumstances, and Behavior; and the Judgment Diagram, representing the connection of relevant circumstances to Reasons (including the hedonic, prudential, ethical, and esthetic perspectives) and the relative weightings reflected in a decision/judgment made by a given person, reflecting his PCs. These, however, are beyond the scope of this paper.

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Author's Note

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Contributions of Descriptive Psychology to Strategies of Negotiation: The Case of Religion and Government

F. Richard Singer and H. Paul Zeiger

Abstract

Many troublesome debates about religion and government spring from the differences among people who have different views regarding when the laws of the land can trump the tenets of their religion. The protocols of the debating society, the scientific discussion, or the court of law are not particularly helpful in such situations because those protocols are aimed at picking a winner among competing candidates. Their contexts include a presumption of win-lose, zero-sum. What is needed in the situations under consideration, in contrast, are ways to agree on actions to be taken that do the least violence to the beliefs and practices of the participants. Methods derived from conceptual analyses inspired by Descriptive Psychology show promise for use in such situations.

Introduction

What practical value could possibly come from yet another paper about religion and government, especially one that attends not to facts, but to concepts? We intend indeed to generate practical value based on the following observations:

- Persons of differing religious persuasions are constrained by those persuasions in their attempts to participate together in the functioning of a city, region, or nation. Witness the

conflicts between Christians and the non-Christian inhabitants of the Roman Empire during the first three centuries of the present era; the Jews in Spain in the late Middle Ages, and throughout Europe generally; the religious wars of the 16th and 17th century; the abolition of Buddhism in India; and the Hindu-Muslim conflicts during the time of the Mogul invasions and later.

- When significant constraints emerge, joint participation in the functioning of the government has to be negotiated among participants whose concepts, principles and practices differ.
- The protocols of the debating society, the scientific discussion, or the court of law are not particularly helpful in such situations because those protocols are aimed at picking a winner among competing candidates. Their contexts include a presumption of win-lose, zero-sum. What is needed in the situations under consideration, in contrast, are ways to agree on actions to be taken that do the least violence to the beliefs and practices of the participants.
- Nevertheless, skills in the conduct of such negotiations can be exercised, and can bring improved success in the joint participation by persons of different religious persuasions in the successful functioning of a city, region or nation.

We shall first illustrate the process of negotiation by presenting a dialog among participants of contrasting positions. Then we shall examine the conceptual resources employed, and consider ways in which those resources can be well used.

Consider the following imaginary roundtable discussion, of a sort one might hear on the radio.

Introducing our roundtable participants

Believer: Fundamentalist Christian housewife with teenage children (*Intelligent, earnest and thoughtful, devoted to her children, looks to the Bible for ultimate truth*)

Teacher: High school science teacher (*Steeped in modern science but somewhat limited by its paradigm, eager to share it with his students, an enthusiastic and engaging teacher*)

Theologian: Liberal protestant theologian (*Has studied a range of theologies and philosophies, has an implicit understanding of Descriptive Psychology without having studied it explicitly*)

Politician: Political centrist (*Good-hearted pragmatist, specializes in finding a wedge of consensus leading to beneficial action*)

Moderator: Radio announcer (*Devoted to fair treatment of each participant, to a discussion that listeners enjoy, and to an informative commentary on what is going on*)

Their Discussion

Moderator: Welcome to today's roundtable discussion on the subject of religion and government. To get things rolling, what should be taught in High School science classes about evolution, the origins of living things, and the geological history of the earth?

Believer: I just don't want my tax dollars spent teaching my children beliefs contrary to those of my religious community.

Teacher: My students come from many religious communities. If we remove from the curriculum everything that contradicts any of them, there may nothing left in the curriculum.

Politician: Is there an issue of the rights of minorities here? Could we teach the stories of creation according to several of our main communities?

Believer: In my neighborhood, my beliefs are those of the majority!

Teacher: But truth is not something determined by majority vote. There are scientific methods and standards that have been refined over thousands of years with the purpose of looking squarely at the available data, drawing valid conclusions, and avoiding error. People who have worked with these methods and standards all their professional lives are in pretty good agreement about the history of the earth. That has to count for something. And the majority of the American public agrees with them. Furthermore, high school students need to know those methods and standards for their future roles in the workplace.

Theologian: Once the methods and standards of science are in place, what is true and what is false follows as a matter of sound empirical work. But the methods and standards themselves are not determined empirically. They are created by people, negotiated by people, and judged by people on the basis of the success or failure of the empiricism that they ground. And even today, they are a work in progress.

Teacher: I'll grant that scientific method is still a work in process, but are you going so far as to say that some future version of accepted scientific method might assign some sort of truth to religious creationism?

Theologian: That would be a very long stretch, but I will say this: today's scientific method is quite deficient in its concept of "person", and this deficiency shows up any time you try to take a scientific approach to, say, theology or psychology. For example, there are productive traditions of psychotherapy (cognitive behavior therapy springs to mind), with substantial bodies of empirical fact behind them, and those bodies of fact all rest on commonsense notions of person very different from the "scientific" notion of person as dynamical system made up of organs and changing via interacting chemical pathways. The better scientific notion of person would include both the dynamical system and the commonsense notions in a coherent logical framework, and that logical framework would support better theology as well as better psychology.

Believer: Aha! It is just as I thought. Evolution *is* just a *theory*, and might be eclipsed at any time by a better one.

Teacher: Careful! The better one would have to preserve all the successes of the current science, including lots of very practical stuff in, for example, geology, which rests on a history of the earth, and genetics, which rests on the histories of species.

Politician: We are heading down a road familiar to me. When people with different conceptual frameworks get to arguing about what is true, they are sure to go nowhere. In politics, such a deadlock can sometimes be avoided by shifting the subject from what is true to what is useful. For example, the scientific account of the origin of the universe and of life was constructed in order to explain a body of observations of the *physical* world. The creation stories of religions have a different purpose: to point to the fundamental characteristics of human beings, and lay the foundation for their moral development.

Teacher: I'll take a shot at that. I *have* to teach present-day science to any student who might go into geology or genetics or any field where that science is used to obtain practical results. I am committed to that by law and by custom. But the teaching of morals is not included in my job description, and if a student wants to reason from the scientific account of the origin of the universe and of life when she is doing geology and from her religion's creation story when making moral judgments, I have no objection.

Believer: Does that mean you are willing to give class time to my religion's stories?

Teacher: No, I'll leave that to your Sunday Schools, where the expertise lies. Wait—now that I think about it there is something else I can do. I can teach more about both the power and limitations of scientific methodology, and especially the relationship between empirically established fact and the models or theories used to account for them.

Theologian: If the question comes up in class, you might point out that present-day science has shown tremendous explanatory power regarding the practical aspects of the physical world, but much

less power in the world of persons and behavior. On the other hand, the stories from all the world's religions focus very heavily on what it means to be a person, what relationships and achievements are open to persons, what choices of actions are advisable or inadvisable, and what constitutes a good life.

Believer: It seems to me that you are trying to position science as useful in one domain of life (dealing with the physical universe) and religion as useful in another domain of life (dealing with people) and never the twain shall meet. Are you really saying that there is no overlap at all between science and religion?

Moderator: That is certainly a good approximation to what I am hearing, and I think that it is a good guideline for what happens in a high school science class. But I think the twain do meet now and then, especially in our next question: Under what circumstances should abortions be permitted?

Let me be more specific. There have been statistical studies made of a mysterious dip in the teenage crime rate 16 to 19 years after *Roe v. Wade*. After carefully eliminating other possible causes, there remains statistical support for the hypothesis that the dip was caused by babies not being born who would otherwise have grown up in poverty (with young single mothers ill-equipped to socialize them) and become contributors to the crime rate when in their teens. I do not propose that we debate the truth or falsity of this very controversial hypothesis, but instead consider: *if* it were well supported, should it be admissible as evidence in the abortion debate?

Believer: Certainly not. Abortion is murder, regardless of any real or imagined downstream benefits.

Teacher: But *some* cases of murder itself *are* justified by downstream benefits—by arguments that the available alternatives are even worse. I'm thinking of killing in self-defense or in a war.

Believer: You can't be serious. In those cases you are facing an already murderous enemy, not a helpless child.

Theologian: The controversial hypothesis reminds us that the child will not be helpless, and may be dangerous, 17 years later.

Nevertheless, even the hypothesis does not justify abortion, because we do not kill people who have committed no crime yet, even if it can be shown there is a high probability they will murder somebody in the future.

Believer: All this is irrelevant. Abortion is a crime. The Bible says so.

Theologian: The passing of laws forbidding all the actions prohibited by any of the scriptures of the world's great religions might not leave us much in the way of personal freedom.

Teacher: What about the rights of, say, a rape victim, not to be forced into 9 months of pregnancy, and perhaps 18 years of childcare, against her will?

Politician: I'm hearing three threads to this discussion. The first is theological: What does God decree? That is decisive for the religious person, but not for a democracy embracing a variety of contrasting religions. The second thread has to do with value judgments regarding when killing is justified by some higher good. The third, and most important, thread is linked to the second: How many of the rights of a full-fledged person are acquired by a person between conception and birth? There is plenty of precedent for assigning (or withdrawing) rights and responsibilities to an individual over the course of a lifetime; consider graduations, elections, marriages, sentencing to and releases from prison.

Theologian: You might get good agreement that the right not to be poisoned by drugs or alcohol in the mother's bloodstream is acquired at conception. On the other hand, some contend that ascribing anything called "rights" to something with virtually none of the capacities of a typical person makes no sense, and that arguments against abortion ought to be made on grounds other than rights—for example, that violence against something that is expected to become, in due time, a person, is wrong but not murder. The really tough questions come when rules like this one conflict with the welfare of the mother.

Politician: Or of society, if the controversial hypothesis that began this discussion is to be believed. There is a question of

investment, by family and society, in the individual. The loss of even a full-term newborn is much less of a tragedy than the loss of a 21 year old. Value judgments like this involving societal investment come up in medical ethics cases, when a doctor gets to save only one of two individuals.

Believer: My theological position is that the person at conception acquires the right to life, and that it trumps any rights of the mother to convenience, self-fulfillment, or even life, and that it also trumps any societal interests like resource allocation or public safety.

Politician: You could hardly find a more spectacular conflict of the rights to life, liberty, and the pursuit of happiness than that between a woman and her undesired, newly-conceived fetus, especially when the pregnancy threatens her own life and her family's well-being.

Theologian: (Tentative) I'm beginning to think that the real stickiness of the moral issues here has its roots in the differences between the potential and the actual. Both the paradigm cases we are arguing from, the right of an individual to life and the right to kill in, say, self-defense, involve actual persons with actual histories, capacities, and communities. But in the abortion case, everything is potential: both the future of the fetus and the downstream effects on the mother and her community. I believe that our moral philosophers need better tools for dealing with potentials.

Politician: That's certainly important in the long run. Shorter term, I see some hope for some working agreements along the following lines: Abortions are undesirable and efforts to reduce their incidence are to be applauded. The unborn have certain rights. They may lack the full protection of the law accorded an adult in good standing, but on the other hand, they may—in the light of their helplessness—deserve additional protections not accorded even to adults.

Teacher: I can see some possibilities for agreements along these lines that I could support.

Moderator: Nobody expected much consensus from such a diverse group on so controversial a question, but we have sharpened the picture of the practical issues to be confronted. Future decisions of our society's courts and legislative bodies will have to evolve a body of law and custom around two questions: (a) What legal protections should accrue to the person at what stages, from conception on? And (b) when conflicts arise between these protections and the legal protections of others (also involving potential situations), how are these conflicts to be resolved? I expect that the latter question will be addressed case by case.

Moderator: For our last question, consider the issue of whether the law should permit the public display of religious symbols like nativity displays in parks at Christmas or displays of the Ten Commandments in courtrooms.

Believer: The prohibition of such displays is one of the silliest things I have ever heard of. If I can put up a Manger Scene in my yard, and my Jewish neighbor can put up a Menorah in his, why can't the city put up either, or both, in a park?

Teacher: The relevant text from the first amendment says: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof." I believe the question with which the courts have struggled is whether such displays constitute endorsement of a specific religion by the Government.

Believer: Even if they did, I do not see any laws being made, but putting that aside, why couldn't the city avoid even the appearance of endorsing a specific religion by putting up different symbols, from different religions, in their respective seasons?

Politician: My understanding is that doing so might entail a commitment to putting up more symbols than the majority of taxpayers were willing to pay for. We have to bear in mind the rights of minorities. It is all very well to say we are celebrating festivals created by religions X and Y, but what about the followers of religion Z, who feel that their religion is being denigrated by omission.

Theologian: If a government wanted to sail close to the wind on this one, I could see establishing a policy of roughly the form: "If

you can satisfy certain conditions, we will put up symbols of your religion in a certain number of its seasons.”

Teacher: What conditions?

Politician: Well, they would have to address budget concerns; religious groups with a small tax base might have to chip in for their displays. Esthetic considerations would have to be covered, presumably by some judgment process neutral to everything but esthetics. And things would have to be easy enough that minorities would not feel frozen out by weight of bureaucracy.

Believer: All that does not sound so easy.

Theologian: The general principle I see us groping toward is that of fairness, of celebrating the festivals of various religions, with perhaps more visibility to the religions that are more heavily represented in the citizen population, but with respect for all religions, and a willingness to celebrate any one’s religion, within the boundaries set by a few commonsense rules.

Politician: As future negotiators approach these issues, and especially as they contemplate what the “boundaries set by a few commonsense rules” might be, I would urge all sides to be very respectful of the following issue: Persons acting on behalf of their religious communities are nevertheless bound by the laws of the land. That fact constitutes a kind of relinquishment of some sovereignty by the religions. In return, the religions are relieved of the burdens of providing public safety, common infrastructure, and many other functions of the government. From the other side, by encroaching as little as possible on the principles and practices of its religions, the government is relieved of the burden of providing ways for individuals to meet their spiritual needs and aspirations. Although there will always be some overlap of responsibilities, the division of concerns between religions and the government constitutes a kind of “social contract” that, if well-negotiated, can serve both sides.

Moderator: I look forward to seeing such enlightened negotiations.

Commentary

In order to gain a deeper understanding of the interactions of our five participants, we draw upon several concepts from Descriptive Psychology: Justification Ladder (Shideler, 1988 pp. 81-83), Community (Putman, 1981, Ossorio, 2006 pp. 181-187), Significance (Ossorio, 2006 pp. 187-191), and Status (Ossorio, 2006 pp. 268-274).

The way one justifies a behavior may go through several “rungs” of justification. The first rung, simply proceeding according to ordinary moment-to-moment appraisals, has failed the participants in each case because disagreements have arisen at all. The next rung, appealing to custom, also fails them. The main reason is that the participants come from different communities having different customs. The customs of a fundamentalist community conflict with the customs of a scientific community over the teaching of evolution. In all three cases, the participants resort to the third justification rung, namely principle. To come up with joint behavior justified at this level would be to: (a) find one or more principles for behavior relevant to the case that all participants and their communities could agree on, and (b) create a particular behavior that satisfies that principle in dealing with the case at hand. For this, there is some hope. There are candidate principles characteristic of American democracy that the participants and the communities that they represent agree upon: individual freedom, protection of the rights of minorities, universal suffrage and universal opportunity (and with them universal education), and freedom of religion. But these principles gain their universality in part by being stated at a rather high level of significance, and the participants are called upon to bring them down in significance by asking: “How?”

In the first case (the teaching of evolution), the Politician achieves a modicum of success in this endeavor. He proposes a course of action that respects both the rights of a minority and the needs of a democratic government for a population educated in the insights of modern science. And the Teacher is beginning to see that a major goal in teaching science is to teach about both the power

and limitations of scientific methodology including the relationship between empirically established fact and the models or theories used to account for them.

The third case (public display of religious symbols) ends similarly, albeit with a lower level of agreement. There the participants agree on the principles of individual freedom, especially of religion, respect for the rights of minorities, and the necessity to avoid the government's legislating in favor of any one religion. They further agree on a level or two of "How", and outline how further details might be negotiated

The second case (abortion) embodies all the difficulties from cases one and three and adds an additional difficulty of its own: failure to agree even on the relevant principle(s) because of differences over the status assigned to the unborn, i.e. the package of eligibilities and expectations that is attached to that position of the individual in society. There is agreement on the overall principle of avoiding violence to the individual. But differences arise in situations where violence (and there may be some further difference about what constitutes violence) to somebody is unavoidable, but can be shifted to land on one person or another. Then the statuses of the individuals who might be victims of violence come into play—especially the status of the unborn. There is precedent for according different statuses to different persons based on age, education, accomplishment, or many other characteristics. Children, for example, have been singled out for special rights to protection by international human rights agreements. But the unborn are different. In the scenario above, the politician summarizes what little common ground has been reached.

Why is it so hard?

Central to the conflicts under discussion are the overlapping communities associated with religions (the participants in each religion) and governments (the citizens of each government). Each member of a religious community is also under the jurisdiction

of a government. Consider the parameters that characterize a community:

(members, statuses, concepts, locutions, social practices,
choice principles, world)

Below is a brief account of these parameters. For more see (Putman, 1981) or (Shideler, 1988) or *Concept Dictionary-Encyclopedia* in the Descriptive Psychology section of conceptualstudy.org.

Members. To be a member of a community normally is to identify oneself as a member and to be recognizable as such by other members of that community. The distinction between members and non-members will also normally be recognizable to non-members. Furthermore, this distinction is behaviorally significant, i.e. members will be treated in some manners differently than outsiders. Membership may be awarded by a formal ceremony, such as an initiation in which an individual becomes a member of sorority. It may be recognized with specific criteria but without ceremony, such as being a member of the community of Chicago residents. Both recognition and criteria may casual, as when an individual is merely recognized as belonging to the community of football fans.

Statuses. Having a status is to have a certain set of relationships. For any P each of P's statuses refer to P's place or position in some world in the broadest possible senses imaginable. An eligibility for P is being able to play a certain role. Statuses determine P's eligibilities, i.e. P's potential for behavior. They may be explicitly recognized, such as starting point guard for the Boston Celtics. The may be more casual, such a person you can rely upon in a crunch. The status of full-fledged person with all the rights and privileges thereof, as contrasted with the status of person who is not yet full-fledged, enters into the abortion discussion above.

Concepts. To engage in deliberate action a person must be able to make conceptual distinctions. The concepts of a community are those that are essential for meaningful participation in its practices, and especially in its core practices. Non-members may also

recognize these concepts, but when they do they may not understand them in the same way that members do. For instance, the community of boy scouts uses the concept of an Eagle Scout, and furthermore this concept is understood in terms of its merit badge requirements. An outsider may also be able to use this concept, but many will use it more vaguely and few outsiders to the scouting community will know the requirements.

As noted above the concept of person is central at several points in the discussion. Particularly important to the discussion of science teaching is the concept of explanation. The scientific community's notion of explanation places great weight on logical simplicity, while a religious community's notion of explanation may put less weight there but more on harmony with scripture. See (Ossorio, 2006 p. 69) for the Descriptive Psychology concept of a person and (Singer 2007) for the relation of this to the person concept of some religious communities.

Locutions. The locutions of a community may include the language spoken, such as English or French. More important, they include the ways in which it is spoken and the concepts and conceptual distinctions this indicates. This involves the use of jargon and terminology and expressions that are intertwined with the social practices of the community. Particularly important to discussions among participants from different communities are locutions that carry an extra payload of value judgment in addition to their literal meaning. One need only recall political discussions mentioning “liberal”, or “right to life”.

Social Practices. A community is especially distinguished by the things members do as members of the community and the way in which they do these things. These are the social practices of the community, and the point of being a member is to be eligible to engage in these practices. There are optional social practices, in the sense that a member can be in good standing without engaging in the practice. There are also core social practices, i.e., those that a member must engage in to be considered a member of the community. For instance, planting wheat might be an optional social practice in a

farming community. However planting *some* crop would be a core social practice, since no person who *never* planted a crop would be considered a farmer. The differing ways in which different communities conduct similar practices can impact cross-community cooperation. For example academic communities often value forms of spirited debate that might be considered insulting by other communities.

Choice Principles. The actions of members as they engage in its social practices are guided by choice principles. Choice principles include any of the ways a community accepts the justification of the behavior of its members. For instance, a member may appeal to custom or principles. Choice principles are often expressed in the form of value statements, norms, policies, slogans, etc. They are often illustrated in stories or myths. Choices Principles are where the differences among communities may lead to the most conflicts. The scientist's principle of Occam's Razor, the fundamentalist's principle of scriptural infallibility, the politician's principle that getting reelected trumps other considerations, and the economic conservative's principle that free market efficiencies trump other goals, are all important to their owners, and instantly available to conflict with other, contrasting principles. Consensus in favor of a course of action is typically only possible when it is seen as neutral or positive with respect to the choice principles of all participants.

Worlds. In describing what we do and think about we use elements that we think of as {objects, processes, events, states of affairs}. A world for a person P is a large interrelated set of such elements that P is willing to act on. For instance, P might have world W of cycling. That P's bicycle tire has a nail would be a state of affairs in W. P's tire and tire gauge are objects in W. Having the tire go flat is an event in W. Repairing a flat tire is a process in W. P will have a multitude of such worlds, cycling, music, family, some profession, etc.

From the parameters of communities, it is easy to read off a number of possible conflicts between the two communities under discussion:

- The government will require general education of its citizens, which may contain material contrary to the worlds of one or more religions
- Communities have statuses together with rules for their assignment and change. These may conflict, as when one community assigns the status of full personhood to the fertilized egg, and the other denies this status.
- The communities may have choice principles that drive decisions in opposite directions. For example, a government will typically place a high value on promoting peace among its various sub-communities, while for a religion peace may have a lower value due to the desire to suppress competing religions.
- Two communities may have different connotations associated with different locutions, making a clean discussion difficult or impossible, especially when those connotations have status implications. One need only contemplate political buzzwords: pro-life, pro-choice, right to work, right to die, liberal, conservative, etc. Some of these locutions thinly veil status assignments that conflict with each other.
- The communities may have practices that conflict with each other. Differing practices concerning land use offer examples: land ownership is central to capitalist economics, while it plays a more subdued role in many indigenous societies. Religions that proselytize heavily may collide with government or housing division restrictions on solicitation.
- The sovereignty of the government may collide with ultimate significance that belongs to one's religion. Consider Mahatma Gandhi, for whom the independence of India from Britain carried a spiritual, i.e. preeminent, significance, while for Britain, the preservation of the empire was preeminent.
- Communities may even differ in the concepts and their corresponding locutions available for discourse on important subjects. For example, translators of Eastern religious texts

struggle to come up with adequate English renderings in context of the words “Dharma” and “Karma”.

Where do the opportunities for progress lie?

The first priority is realistically to take into account what is changeable. The values of the parameters of a community as a rule change slowly, and those the community considers essential are extremely stable. Do not expect to change someone’s core choice principles, although even this can occasionally happen. Some community parameters, however, do change over time. Cigarette smoking at basketball games is no longer an acceptable social practice. Moreover community parameters expand to take account of new circumstances. Although a person’s established locutions and concepts are extremely stable, new locutions and new concepts emerge, e.g. “global warming” and “carbon credits”.

The second priority is to recognize that even with little or no change to any of a community’s parameters, positive results can be achieved. Typically, these positive results comprise one or more courses of action that do not do violence to any of the important parameters of any of the communities at the table. To the extent that two different communities are interdependent, agreed-upon courses of action may be essential to the wellbeing of both communities. To make headway calls for three stages of coming together by the participants:

Coming together on concepts and locutions

All that this stage implies is to develop enough common language and concepts even to talk about the subjects under discussion. No agreement on facts or actions is implied. But the objectives *do* include avoiding using the same word for different concepts, and avoiding locutions that carry (a) implied status assignments to which some participants object, or (b) presumptions of fact, or (c) controversial value connotations, especially those that will inflame

one or more participants. Political discussions, especially the kind that appear in newspaper columns and on television talk shows are almost always rife with inflammatory language (“Liberal”, “Right-Wing Extremist”, “Illegal Immigrant”). All this is not so easy. It takes a specific (teachable) ability to listen to someone who has a different world than you do, and to develop a rough private model of that world—a world you may have to work within or around in the course of discussion. The same ability is called upon when a resident of the US spends time in the far north of Canada or in southern India. Those environments feature physical and social environments that contrast with the traveler’s own, and his well-being depends on understanding them well enough to mesh with them. Courses on “deep listening” address parts of this need (See Nichols, 2009 and Zeiger, 2001).

Coming together on facts, and portions of worlds

With some common language and concepts in hand, the next objective is to gain some agreement on *facts* about states of affairs or events or other relevant claims, thus delineating an overlap of agreement between the worlds of the various communities. In the existing Descriptive Psychology literature, this process is called negotiation (a specialization of the common use of the word) (Shideler, 1988, pp. 80-85). The process has four stages: taking positions; criticizing and defending positions; adjusting positions; and drawing conclusions. These stages are repeated until there is no more adjusting of positions. Typically, the conclusions at that point consist of a body of agreed-upon fact (shared world), and some other bodies of fact upon which the participants agree to disagree. The larger the shared world, the better the prospects for success at the next stage.

Coming together on courses of action

With whatever common concepts, locutions, and portions of the real world the participants have been able to achieve, they move on to the next objective: *one or more courses of action that do not do violence to any of the important parameter values of any of the communities at the table*. The commonly used word for this process is “bargaining” (Shideler, 1988, pp. 83-85). The process is familiar through its similarity to bargaining in the market place: “I am willing to agree to this if you are willing to agree to that” (Bergner, 1981). Note that the achievement of any such agreement is doomed in the absence of at least *some* success at the first two steps. The essence of cooperation at this stage is the creative synthesis of actions that make sense in a number of different worlds (the worlds of the participating communities) at once (but of course not the *same* sense in all those worlds).

How did our discussion participants do on these three stages?

They did pretty well on stage 1. They started out speaking the same language, came from very similar communities with American culture, and treated each other with respect. They avoided loaded terminology, and clarified the use of terms when necessary.

Their biggest accomplishment in stage 2 was the delineation of the different choice principles of different communities: belief in the authority of scripture versus belief based on the truth-testing of current scientific practice; assigning preeminence to the survival of the unborn versus assigning preeminence to a utilitarian principle that includes additional individuals. This clarified some of the main things that had to be worked around in stage 3.

The format of the roundtable discussion did not encourage a stage 3, since the participants were not charged with the duty of coming up with action items. Nevertheless, at the end of the discussion of each of the three questions, the Moderator pointed out directions in which bargaining might proceed. However the goal of this paper is

not to resolve these issues or to give methods the will guarantee their resolution. The purpose is to provide conceptual tools that might help divergent communities to make some progress on problematic divisive issues. These are tools are for use by persons having the desire to resolve issues in what is not taken to be a zero-sum game. As with any tools, results depend upon the skill with which they are used.

What has this chapter offered?

This chapter has mostly offered reminders. Reminders that persons coming from different religious persuasions to join in the effective functioning of a government face challenges in communication and cooperation more subtle than those faced by, for, example, most industrial work groups or nonprofit volunteer teams. These latter groups are normally focused on a narrow set of goals and are like to have substantial agreement on many of them. Moreover the context in which they interact is more likely to provide them with a large shared world for the purposes at hand. The challenges can be met more effectively via more realistic courses of action: listening in order to grasp the other's world, refraining from trying to change that which is unlikely to change, and focusing on action that is both a step forward and acceptable to all, even if it is not what anyone came in wanting. Although all of the techniques suggested here are in use (usually intuitively) every day by experts (Bergner 1981), there is widespread ignorance about how to conduct such negotiations successfully. We hope that the analyses presented here will contribute to the wider spread of this much-needed expertise.

Although we have written the examples in the context of American society because it was the first to achieve a clear separation of religion and government, the issues are relevant to any society in which these institutions are at least distinguishable. In a recent issue of *The New York Review of Books*, Buruma (2009, May 14) reviews two books, *Beyond Terror and Martyrdom* by Gilles

Kepel and *La Peur des barbares: Au-delà du choc des civilisations* [*Fear of the Barbarians: Beyond the Clash of Civilizations*] by Tzvetan Todorov that takes the issues that we have raised into the relations between Muslims in Western societies and between Islam and the West. Kepel critiques the grand visions of relationships between Islam and the West that have been presented with such havoc in the media. He sees these “narratives” as entirely misleading basis for relations between the two communities. “Narrative” is a kind of large-scale dramaturgical model that underlies the world of the extremist, and it is similar to the notion of world or worldviews in Descriptive Psychology. Todorov observes that a government can demand of newcomers respect for its laws and “rules of the game” but not that they love the government. Only totalitarian societies do that. The reviewer and both writers suggest, as we have above, that government specific choice principles must be handled delicately in order to preserve the balance between rights of the minority and the neutrality of the government with respect to religion. Todorov also observes that law trumps custom in the justification for actions. Buruma is acute in his perception of the distinction between attacking beliefs vs. attacking individuals (as in the case of Salman Rushdie). In Descriptive Psychology, this is the distinction between disagreement and degradation. The three writers also make some specific proposals regarding what compromises make sense to them. This puts them in the position of negotiating and bargaining just like the participants in our roundtable.

In this paper, we have deliberately refrained from taking a position on which principles, practices, and status assignments ought to be the particular concern of the government, and especially in what choices the government gets to trump its participating communities. Different forms of government can lead to different forms of, and different results of, the process outlined here. And, in a context in which legislative and judicial precedents matter, different results of the process can even lead to somewhat different forms of government. For all forms of government though, with the possible exception of an autocracy, competence in the methods we

have put forward here is a prerequisite for success, especially for those in authority, but also (at least in the case of a democracy) for the population at large.

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On Saying “No”: Evidence Based Practice and the Hijacking of the Empirical

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Abstract

Poorly framed descriptions of psychotherapy serve as a pretext for the requirement that the efficacy of therapy requires demonstration through randomized control trials. Such restriction involves an inadequate conceptualization of the nature of psychotherapeutic engagement but is an understandable reaction to the conceptual confusion that continues to exist in most theories of psychotherapy. Descriptive Psychology is offered as a partial antidote to this problematic state of affairs.

Psychotherapists trained to engage in careful empirical examination, mindful of preemptive and limiting assumptions, who offer logically sound, empathic, and revisable descriptions and interpretations, live in a current climate where their hard won practices are vulnerable to a restricted vision of science, competence, and knowledge. Not all therapists respect scientific and empirical traditions, and it is reasonable to assume that not all practices called psychotherapy are generally or specifically helpful or effective. It is reasonable to question the adequacy, intelligibility, and value of the various activities called psychotherapy. Nonetheless, under the banner of scientific accountability, psychotherapeutic practice may be subjected to conceptually improper methods of analysis. The good may be lumped with the bad and the acceptable may be too restricted to make a difference in the real world. These themes will be the subject of this essay coupled with my hope that the reader will

recognize that Descriptive Psychology provides both concepts and methods that can clarify and protect the properly empirical from preemptive restriction.

Peter Ossorio, the founder of Descriptive Psychology, was famous for a teaching method that often started with his saying “no”. He would say “no” to weak and sloppy thinking and to the esthetic disregard that comes with undisciplined claims to knowledge. Poorly articulated but effective performance was worthy of his attention, but he required the competent description of content if a topic was to be worthy of serious consideration. He respected competence but demanded intellectual clarity. As he once put it, “Things that are not intellectually satisfying tend not to be satisfying in other ways as well.”

Ossorio demanded of his students precise thinking and expression, clarity without assumptive restriction, a sort of play that demanded rigor without foreclosure of possibility. All conceptually possible options were to remain open in formulating a subject matter before establishing the empirically particular facts that happen to be the case. In his *“What Actually Happens”: the representation of real-world phenomena*, (1971/1975/1978/2005) he affirmed his interest in totality. Following Wittgenstein, a bit of Ossorio’s faith was the belief that language provides potential access to everything. He coupled his Maxim 1, “A person takes it that things are as they seem unless he has reason to think otherwise” with a distrust for claims of hidden or private meaning. He called his work “Descriptive Psychology”, in reference to the *Philosophical Investigations*’ reminder that, as Wittgenstein demonstrated, if a description is adequate, “there is nothing to explain” (1953, p. 50). Clarity and the detail of description becomes the central concern before explanation or theory matters.

When I was his student, Ossorio often responded to my theories and formulations, my grand ideas, with “no”. Then he would show me various ways out of my conceptual muddle. Ossorio let me know he appreciated what I wanted to understand but was not so pleased with the way I went about it. Wittgenstein answered the question, “What is your aim in philosophy?” by answering, “to show the fly

the way out of the fly-bottle.” “No” was Ossorio’s frequent first gesture in indicating the intellectual trap or dead end that I was headed toward.

I was often asked by Ossorio to describe and then re-describe my various interests and observations. He would show me how to get better access to my themes by using the conceptual tools and procedures he had created or was developing. Many years have passed since my first lessons with Ossorio and Descriptive Psychology’s concepts and the rules for their operation have been much expanded. Ossorio has given us a workable guide to the rules of description, opening the door to an adequate unpacking of the key concepts of “Person”, “Language”, “Action”, and “World”. “Essence is expressed by grammar,” Wittgenstein said (1953/1958, p116e). Ossorio developed an adequate grammar for behavior description and, in so doing, the rules for describing both the nuanced world and the form of our “essence”. With the example of Wittgenstein’s toolbox in mind, Ossorio taught that tools cannot all be of one sort but must vary with the range of the possible operations or actions performed. Because both personal action and the world’s terrain vary in a non-uniform fashion, behavioral descriptions and world maps require a complex grammar that does not derive from any single “root metaphor”. (See Stephen Pepper on “root metaphors”, 1942/1972). Everything does not, in one way or another, boil down to the same thing. Persons, languages, actions, and worlds are not really just machines, organisms, contexts, or formulations.

The institutional setting for much of Ossorio’s work was academic clinical psychology, which provided fertile ground to study possibly effective social practices that had been articulated incoherently. Of particular interest was the social practice of psychotherapy. I teach in a school of professional psychology where there is acute awareness that the continued viability of psychotherapy as a respected professional activity is uncertain. Psychotherapy remains a vulnerable social practice and, I will argue, a confused language game.

Ossorio's writings, which began during the 1960's and 1970's and continued until 2006, showed a persistent concern with the inadequacies of traditional theories and his continued refinement of his original insights into the grammar of behavior. During that time, it became painfully clear to a number of psychologists that, whether psychotherapy was helpful or not, the standard theories of personality and their associated psychotherapies were intellectually bankrupt. (See for example, the critiques by Roy Schafer, 1976, and George Klein, 1976 regarding psychoanalysis.) I do not think the average expected education in the theory and practice of psychotherapy has moved beyond this confusion except to acknowledge that there are many different therapeutic practices that should be respected in a manner that resembles respect for a neighbor's different (but wrong) religion.

Wittgenstein ends the *Philosophical Investigations* with the diagnosis that the problem with psychology as a science is that we have "experimental methods and conceptual confusion". Ossorio saw this problem when he first began his writing, and set out to correct it by formulating the foundational grammar of behavior and persons (1966 and 2006) and by investigating the practices of great therapists to see the sense and nonsense that they generated (1976). Still, given existing theory, the problem of claiming there is a scientific basis for psychotherapy continues (Godwin, 2009).

Games or practices with muddled and contradictory descriptions and rules are hard to judge competently and fairly. The referees speak past each other if they bother to speak at all. None of this engenders trust or confidence and provides a justification for the powers in place to attempt to restrict play or commandeer the rule book. Some of what we now contend with: the second guessing of managed care, diminished insurance reimbursement, the "dumbing" down of training, and the restrictive tent containing the "official evidence based practices" are an understandable but reactionary trend to unresolved confusions.

Making conceptually incompetent scientific claims, the field of psychotherapy is vulnerable to an informed judge with the power

to point to its scientific inadequacy. The mire we are in may result in the waste of sound knowledge and practice, brought about by financially driven concerns for effectiveness and cost control. These are legitimate concerns. Psychotherapy takes time and time is money. The insurance industry has legitimate concerns with bang for its buck, and our training institutions and provider services echo these recognitions.

For years now, various blue ribbon panels, when examining the claims of personality theory and psychotherapy, recognized the ongoing confusion and properly distrusted any of the grand narratives that came out of these fields. They cast a skeptic’s eye. My practice of psychoanalysis is a prime suspect (Gunbaum, 1993). All the psychotherapies that claim kinship and are informed by the traditional personality theories seem automatically suspect, and reasonably so. (These same critics seem less inclined to acknowledge that the same conceptual problems regarding “scientific explanation” can be applied to cognitive behavior therapy and psychopharmacology (Godwin, 2009).) Nonetheless, I have good experiential ground to believe that aspects of these suspect psychotherapies are well worth preserving, well worth devoting the time and money to their practice. I also believe much of what we do is helpful, is life-enhancing, but I cannot easily demonstrate that claim within conventional scientific paradigms. I am going to argue that there are sound knowledge and practices that are demonstratively effective and can be described and taught with narrative coherence independent of a conventional but improperly restricted scientific paradigm.

Science is necessarily tied to reliable formulation and evidence. This requirement has been problematic for many who practice good psychotherapy. Given the disorder and confusion of the psychotherapies, oppressive forces have entered to control the situation. Using a conservative approach with public policy implications, these interested parties have learned to trust only a very restricted notion of empirical study and the experimental method. They suspect many of us engage in “faith based” treatments

and demand empirical accountability. Mostly they require and have placed their faith in randomized control trials. This coercive discipline serves as a remedy for real problems but like many radical remedies has serious side effects. (The operation was a success; unfortunately, the patient died.)

I think this situation can be corrected by Descriptive Psychology but since all knowledge is someone's knowledge, the actual correction requires the education of many more Descriptive Psychologists. The competent Descriptive Psychologist can demonstrate various forms of sound evidence required to assert that there are ways to practice effective psychotherapy that include but are not limited to those that are suited for study in a randomized control fashion. The first step requires cleaning up, when possible, the existing conceptual confusions. Psychotherapists may also benefit from various fresh starts. A variety of fresh starts toward a coherent psychotherapeutic stance has developed within the discipline of Descriptive Psychology informed by Ossorio's status dynamic maxims (see for example, Bergner, 2007; Bergner and Holmes, 2000 and Schwartz, 1979 and 2008). Descriptive Psychologists competently perform in a manner that involves the social practices of psychoanalysis, cognitive behavior therapy, psychopharmacology, and the status dynamic methods developed by Ossorio and his students. The Descriptive Psychologist knows how to "correct the grammar" and edit the claims of psychotherapists of any stripe.

Given that there is, in fact, real conceptual confusion in psychology, certain organized bodies are attempting to restrict the meaning of empirical evidence in a historically familiar way. They tend to confuse the ideology of a limited or inadequate root metaphor with the range of what is real. It is here again that Ossorio liked to say "no". He would say "no" to constrictive metaphysics. He was especially irritated by the modern enthrallment with mechanistic world views and their attendant reductionisms and determinisms. Ossorio frequently reminded his students that rule-following systems, guarded by the status dynamic maxims he formulated in *Place* (1998), help create understanding as a guide to clarity.

Understanding was the fundamental criteria of successful knowledge with cause-effect predictions only sometimes a reasonable possibility. He began with the claim that we are persons and not machines or other clockwork-like deterministic objects.

Rules for behavior description in the form of Maxims rather than mechanisms were central tools for Ossorio. The Maxims offer guidance toward well-formed descriptions and the practical use of empirical observation. A central reminder is that the empirical involves historically particular facts and distinctions that can be acted upon. The Maxims provide a grammar for the correct descriptions of what is observed (including the fact that there may be various correct descriptions). “Correct” will be pragmatically tied to effective use or action.

Since actions can be judged for effectiveness, it is this pragmatic criterion of effectiveness that allows a factual claim or description to rise above the random or the arbitrary. Descriptions are social constructions but they cannot be dismissed as merely “relative” as certain post-moderns might claim. Effect and serviceability are fundamental criteria for the adequacy of a correct description. We can always ask, “Is this description useful?”, “Does it fit?”, “Is it logically coherent?”. These are the concerns of Ossorio’s Maxims. The Maxims are fundamental reminders and warning, and constitute an unpacking of the relationships of Person, Action, Language, and World. They are content-free conceptualizations, constraint formulas, tautologies, and so, if well formed, should be timeless. They are reminders. (“The work of the philosopher consists in assembling reminders for a particular purpose.” Wittgenstein, 1953, p. 50). Ossorio’s Maxims were designed to protect the integrity of the concept of “Person”. He said about them, “the maxims serve as principles for giving empirically warranted behavior descriptions” (1970/1981).

By 1998, Ossorio’s list of Maxims filled a volume, *Place*, but they began with the following nine, first published in his “Outline of Descriptive Psychology (1979/1981).

1. A person takes it that things are as they seem unless he has reason to think otherwise.
2. If a person recognizes an opportunity to get something he wants, he has a reason to try to get it.
3. If a person has a reason to do something, he will do it unless he has a stronger reason not to.
4. If a person has two reasons for doing X, he has a stronger reason for doing X than if he had only one of these reasons.
5. If a situation calls for a person to do something he can't do, he will do something he can do.
6. A person acquires facts by observation (and thought).
7. A person acquires concepts and skills by practice and experience in some of the social practices which involve the use of the concept or the exercise of the skill.
8. If a person has a given person characteristic, he acquired it in one of the ways it can be acquired, i.e., by having the prior capacity and an appropriate intervening history.
9. Given the relevant competence, behavior goes right if it doesn't go wrong in one of the ways it can go wrong. (p. 80)

The 1998 volume, *Place*, expanded, collected and explicated the Maxims to guide descriptions of persons and their worlds; behavioral choice; value and behavioral choice; stability and change; person and community; the interaction of persons; person and self; limits, constraints, and limitations; and norms, baselines and burdens of proof. *Place* reads like an extended prose poem fiercely articulated without a wasted word.

The Meaning of Empirical Evidence and the Teaching of Descriptive Psychology

When I teach Descriptive Psychology, I have learned to first orient my students to the distinctions that define the domains of the

conceptual, the empirical, and the theoretical (Schwartz, 1988). I want them to understand the need to conceptualize a subject matter before engaging in theory. I describe the task of conceptualization as clarifying the range of possible facts that identify a subject matter as a particular subject matter. Concepts are the tools or action-based distinctions that allow us access to the subject matter’s historical particulars. Well-formed concepts are as eternal as addition and subtraction. While concepts are timeless, the data are the historical instances that exemplify the concepts. In possession of a particular conceptualization, by having a particular subject matter in mind, we are then in position to collect the data, the facts, or the evidence of the particular content or nature of the subject matter. For example, I tell my students that the subject matter of the unconscious, the concept of the unconscious, involves a range of possible facts that person “A” claims is descriptive of person “B’s” actions or motivations while person “B” cannot (or will not) make that same claim regarding what he or she is doing. In this regard, person “B” does not think that person “A’s” descriptions or interpretations of “B” fits. “B” has neither the power nor the disposition to accept “A’s” status assignment. That is where we look, the non self-recognized status one person attributes to another person, when we say that someone is doing something unconsciously. I define theory as the concern with why out of the range of possibility only certain patterns of data empirically occur. Why, for example, are some observations of people’s behavior routinely denied by the actor observed. For example, in early Freudian theory, the theory would attempt to clarify why a person might not know about their alleged incestuous and murderous desires while being fully aware of sexual and aggressive feeling directed outside of their family of origin. The conceptualization of the unconscious as a subject matter that concerns active but non self-recognized motivation is a legitimate subject matter independent of whether Freud’s theory of the Oedipus Complex is an accurate or useful way to understand any particular actor’s actual “unawareness” or behavior.

Early in my lesson plan, I tell students about persons as linguistic self-regulators who are eligible to make choices and who, as persons, have the behavioral roles of actor, observer-describer, and observer-critic. I then show how these roles have formal connections to the concepts of Deliberate, Cognizant, and non-deliberate Intentional Action (see Ossorio, 2006). Using a top down approach that avoids both reductionism and determinism, starting with the full, most complex or indubitable case (i.e., the paradigm case) I develop the tools for making paradigm cases and their parametric analyses (see Ossorio, 2006). I try to show my students how to use the parameters of Intentional Action, a paradigm case of behavior, to effectively represent what they know about a behavior. I remind them that parameters locate the data of a subject matter in a fashion that resembles the parameters of plane geometry’s “ordinate” and “abscissa” or color’s “hue”, “saturation”, and “brightness”. I demonstrate to my students how the parameters of Intentional Action, “Want”, “Knowledge”, “Know-How”, “Performance”, “Achievement”, and “Significance”, provide a general format for the description and analysis of behavior and serve as a method for comparing different theories of behavior. I show students how specific parameters are pertinent to some behavioral theories while others may be neglected, ignored, or deemed not relevant. I contrast, for example, the psychoanalyst’s focus on the parameters of Want, Knowledge, and Significance, with the operant conditioner’s interest in the parameters of Performance and Achievement, or the cognitive behavioral therapist’s interest in reforming Knowledge sufficiently practiced to produce a different Know-How.

I am especially interested in having my clinical students understand how knowledge (or insight) is different from the competence, skill, or know-how to act on that knowledge, and how a performance is conceptually distinct from the significance of the performance (Schwartz, 2002). I also want them to recognize that psychological state and behavioral performance are to be articulated separately. They may need to remember that behavioral performances can be the manifestation of various psychological

states just as a psychological state can be expressed by a variety of actions.

Next, I unpack the Relationship Formula and its articulation of how a particular behavior reflects the eligibility to act in accordance with a particular relationship. I stress the logic of how relationships provide the eligibility to act in certain ways and not others. Then I teach how emotional behavior is to be understood as a variety of intentional action, that emotion is behavior that reflects the impulsive or immediate response to the appraisal of a particular state of affairs. Finally, I show my students the Judgment Paradigm (Ossorio, 2006).

The Judgment Paradigm (Ossorio, 2006, p.228) with its dimensions of “relevant circumstances” and “reasons” and with its focus on the judge’s personal or objective manner of giving weight to various reasons in decision making, is especially central in educating students about the use of evidence. When clinicians claim that they provide effective psychotherapy, they are never in the business of *proving* their worth but rather of *making a case* for their worth by assembling what they take to be the evidence and making claims about the value of the evidence offered. The world of the empirical, the world of evidence, is not the domain of proof but rather the domain of argument. Like the lawyer’s dilemma, different judges have different criteria or standards for whether a case is successfully made. A good case can fall on deaf ears and a poorly made plea might be accepted. There is no way around this. Every judgment is someone’s judgment. Our parametric analyses point to the distinctions to make in gathering data or evidence. The Judgment Paradigm organizes how the evidence is used by the particular judge in question.

I wish psychologists, in general, understood these elementary themes and their parameters. Descriptive Psychology offers a coherent, rational, and useful set of distinctions to hold in mind when acquiring data or evidence. We have the tools for articulating what actually happens. Psychology at large does not.

I think we face the hijacking of what counts as “empirical”. I think a significant portion of the meaning of empirical evidence

has been deleted as unacceptable to the “evidence based practice” movement’s compilation of “empirically-based therapies”.

The two broad and logically connected versions of the basic meaning of “empirical” refer to either the knowledge gained from competent practical experience or to the knowledge gained from the experimental method. That is how the Oxford English Dictionary tells it and I think that definition is a reasonable place to start. But, and here’s the justification for a restricted definition, when a field is rampant with conceptual confusion it is harder than need be to judge the claims that come from practical experience. It is hard enough without conceptual confusion. The demonstration of competent practice and intervention requires their description to be part of public discourse. This central problem may be the undoing of applied psychology. And maybe worse, as Wittgenstein reminded us, the “problem” of psychological “science” is experiment performed with conceptual confusion.

Evidence-based practice ideologues may be coercive and confused but they have the data, the empirical evidence that comes from experiment. They have significant knowledge that reliably comes from experiments and correlational studies of a certain restricted sort. Currently, they are shaping the narrative that is offered as science by restricting claims of value to their restricted notion of what constitutes science. They have reacted to the poorly conceptualized descriptions and theories of psychotherapy as something they correctly see as needing remedy. But their remedy may clear up a symptom while killing the patient.

An Alternative

I want to reintroduce the “Local Clinical Scientist” and the “Natural Historian” as roles for the clinical psychologist. For both the scientist and the historian, the empirical is at the heart of their experiments and their narratives. Later, I am going to come back to these players and their roles and suggest that Descriptive Psychologists are the quintessential “local clinical scientists” and

“natural historians” given their rigorous approach to empirical description and judgment.

Remember, the conceptual is distinguished from the empirical, *pre-empirically*, i.e., the conceptual establishes the range or domain of the subject matter but not its specific “to be found out” empirical content. You have to go out and look to find out what is actually happening. As Descriptive Psychologists we start by not foreclosing on the data. We do not restrict the empirical before we take a look. Clinical looking is generally local. The theoretical becomes relevant, when it does, as a manner of explaining the particular organization of the subject matter’s data. Why, for example, do we find some patterns of data but not others? Are the local patterns suitable for generalization? The explanation of pattern and its possible prediction within a subject domain is the principal value of theory. Psychology, in common with many academic subjects, has historically confused the theoretical with the conceptual. This confusion, in turn, distorts the representation of empirical knowledge.

Why am I concerned with “randomized control trials” (RCTs) and those agents who insist that RCTs are the required gold standard for appraising the worth of psychotherapy? Limiting knowledge of effective psychotherapy to RCTs involves a preemptive restriction of the meaning of the empirical, a disregard of actual “evidence informed psychotherapeutic action”. Notice I am using the phrase, “evidence informed”. I use that phrase in my narrative of the role of the local scientist and natural historian.

I use the phrase, “evidence informed”, to resist the coercion of those who attempt to restrict the practices of psychotherapy to activities that most easily allow some version of a randomized control trial. The RCT provides a restrictive but demonstrable base of operation. But, as Ray Bergner (2006) has clarified, there are many secure bases for psychotherapy, both empirical and conceptual.

So what is the problem with RCTs? I am not claiming that there is not a legitimate domain for this method and the knowledge it provides. Fortunately, we have a rich and respectable literature about these findings and their limitations. Peter Fonagy (2005) and Drew

Westin (2004), two prominent critics and practitioners of RCTs, have offered detailed meta-analysis of what these trials have uncovered and about the limitations and distortions of psychotherapy that RCTs also require. I will list some of these issues.

A List of Issues

There are current and easily accessible websites that organize the evidence for the effectiveness and ineffectiveness of certain psychological practices. Most of this research on “empirically supported therapies” has been the results of RCTs. Summaries of much of this research are collected by the Campbell (<http://www.campbellcollaboration.org>) and Cochrane (<http://www.cochrane.org>) collaborations available on the internet. All this is useful to know and to incorporate into clinical work. It would be negligent not to.

Along with the positive value of knowledge gained by RCTs there are significant limitations and assumptions that guide this research. Some of the limitations and assumptions are highly problematic in the application of RCT-driven research to common clinical practice. There are methodological problems intrinsic to an examination of the practice of psychotherapy. The relationship of the local to the universal is at the heart of the problem.

Generally, randomized control designs require or have employed a single axis 1 disorder with a restricted subject pool to ensure homogeneity. The research design starts with the symptom clusters identified as mental disorders in the psychiatric medical model oriented, *Diagnostic and Statistical Manual*. The first assumption is the problematic but conventional claim that psychotherapy treats mental illness. Ignored or excluded are the complex patterns of personality and life that the clinician sees in the average expected practice. Also, these designs require treatments that are manualized and are of brief and fixed duration and involve outcome assessments that focus on specific predefined symptoms. [See for example, Westen, et. al. (2004) and Fonagy, et. al. (2005)]. Drew Westin and others point out that many of these studies assume or require

malleable pathology that brief interventions can effectively fix, that the patients studied can be treated for a single disorder, and that personality factors are not particularly relevant to treatment. Good luck in finding that set-up in what usually brings people to psychotherapy.

RCTs have high internal validity but come with the cost of a severe constraint on external validity given the necessary assumptions that have to be made regarding testable populations. The problem is not just with the variability of patients but also the variability of therapists. Tip O’Neill, Jr., famously said that “all politics is local”, and much the same can be said about what therapists do in their offices. Can the successful therapist follow a general manual given the actual conditions of the work? The idea of the manual is an interesting problem.

It has been many years since any serious psychoanalyst or psychotherapist conceptualized him or herself as essentially an instrument, exchangeable with anyone else of similar training. The therapist as an instrument operating on a patient is way too reductionistic a metaphor for the interaction of persons but it is compatible with the notion that our work can be manualized. Persons are obviously more than mechanistic instruments even if much of classical personality theory describes people in mechanistic terms. In my field of psychoanalysis, the idea of the relationship of the analyst and analysand as the fundamental unit is a recent attempt at correcting this misconception. These days, psychoanalysts often describe their work using concepts and conceptualizations such as “inter-subjectivity” and “the emergent state that follows from the intimate engagement of two agents with self-reflective intentionality”. (But imagine the nature of psychoanalytic discussion in the absence of an adequate conceptualization of intentional action.)

This concern with intentionality was the first concern of Descriptive Psychology. We have an adequate analysis of the concept of intentionality in its various forms that include deliberate,

cognizant, and non-deliberate intentional actions. As far as I can tell, no one else does.

I suppose if therapy manuals were written by Descriptive Psychologists, I would be happier with them. Given our knowledge of status dynamics, the relationship formulas, the judgment paradigm, and our comfort and skill with “unless clauses”, we might write serviceable ones. Actually, I think we already have a guide to their construction in Ossorio’s *Place*. Wittgenstein wrote, “A philosophical problem has the form: ‘I don’t know my way about.’” (1953, p. 49e). Similarly, people seeking psychotherapy often begin with the recognition that they are lost. They may know that their map of their world and the personal characteristics they employ are keeping them trapped or lost. They need something new and different and probably not “one size that fits all”. Wittgenstein embraced the local as varied and irregular when he wrote, “There is not *a* philosophical method, though there are indeed methods, like different therapies” (1953, p. 51e.). That quote resonates with the spirit of Ossorio’s work.

Everyone knows that RCTs can’t teach us enough about how to practice. The American Psychological Association Task Force on evidence-based practice separates the dimensions of “efficacy” from “clinical utility” in evaluating the findings of RCT-driven psychotherapy research (APA, 2006). With this in mind, the APA task force developed the following alternative definition: “Evidence-based practice in psychology is the integration of the best available research and clinical expertise within the context of patient characteristics, culture, values, and preferences.” This alternative is progressive and makes sense but keeps the original problem of conceptual confusion unaddressed and is unlikely to pacify the concerns of insurance companies and regulatory bodies. I am very happy with the task force’s recognition of the concept of “clinical expertise”. This, of course, is a competence notion and respects the value of hard earned practical experience. But again, this does not fix the confused way many competent therapists talk and write about their work. It is, at times, very hard to tell what competent psychotherapists actually observe and do.

Another issue: I want us to remember that there is an underlying assumption in much of the RCT research that psychotherapy is concerned with disease or disease-like problems rather than dilemmas of intentionality or the meanings and significance of a person’s actions in their world. Health insurance does not happily fund what I believe many of us provide and provide effectively. Here, we may be in collusion with a pretense that our actions are to be understood within the social practices of the physician rather than the psychologist. RCTs sometimes provide a reasonable methodology when symptoms of a specific disease are at stake but not when we are confronting a person’s problems in attempting to live a good life. We only sometimes act as physicians.

Pained by feeling depressed and anxious, confused about their skills, responsibilities, and ambitions, thwarted in seeking intimacy, sometimes envious and insecure, often guilty and ashamed, the people who come to my office want to feel better and live better lives. They might see themselves as sick or crazy, as a patient suffering an illness, but the help they want comes largely in a growing sense of being understood and appreciated. I think the kind of work I do often centers on helping my clients see themselves as agents rather than patients. Rarely are they actually sick or crazy. The work they need comes not so much from being doctored, but in finding an honest and trustworthy companion equipped in the art and science of navigating a way through their world of persons. People need to see themselves and their worlds straight in order to adequately deliberate regarding their actual opportunities and dilemmas. As psychologists we are questionable companions if we carry a confused map, and especially if our map is packaged in advance of our encounter and explorations. Here the local scientist or natural historian takes on the explorer-guide’s role in the cartography of the journey *as it is undertaken*. Descriptive Psychology provides roles and tools for the exercise of judgment and sensitivity to personal circumstances in the competent map-making and map-sharing with our clients.

So I am aware that the goals of “managed care” to treat a symptom or a disease may not always be my goals and may be a bad

fit for the concerns of the people who provide me with my income. In earning my living, I am more or less cognizant of my “bad faith” when I fill out insurance forms in collusion with my clients, there described as diagnosed patients. Only sometimes do I act as a physician. We betray our subject matter when we wed ourselves completely to the medical model’s vision of problems in living as due to disease. But even within the medical model we can provide the service of a clean description of the relevant facts. Assessment and diagnosis go hand in hand. As psychologists, we are good companions who only sometimes engage in social practices akin to medical treatment.

But what is my actual “good faith” practice and identity as a clinical psychologist? I am a scientist and an historian of the local and natural sort. I make this status claim with the authority that comes with competence in practicing the discipline of Descriptive Psychology. I know how to provide useful descriptions of what I observe and critiques of my descriptions and the descriptions of others. As a practitioner in the neutral, atheroretical concepts and formulations of Descriptive Psychology, I can provide a description of a state of affairs that any competent judge can evaluate. This is why I teach the students in my supervision seminar crucial features of Descriptive Psychology (Schwartz, 2008). Supervisors of psychotherapy work with the descriptions of someone else, their evidence is always, in part, second hand hearsay. Descriptive Psychology has the concepts for helping our supervisees articulate what has happened in their or someone else’s offices.

As a Descriptive Psychologist, I recognize that there are many ways to evaluate the empirical evidence regarding psychotherapy. The methods of the scientist and historian are not limited to the application of one research design. Both scientists and historians develop an attitude of respect for the logical and the empirical. This attitude of respect serves as a foundation for these disciplined roles. Scientists and historians engage in a disciplined application of the esthetic concerns for coherence, elegance, completion, closure, and fit. They make use of varied forms of logical argument. They

require their knowledge to be public, logical and teachable. Scientific knowledge or the knowledge of the historian must be presented in a manner where an outside observer can repeat or understand an observation or action and can come to his or her own conclusions regarding its adequacy and use. I can see and understand what you describe and can in turn offer a critique that you can understand (even if you continue to disagree). We can share the data. A humane but scientific attitude is called for in our work which is why Stricker and Trierweiler (1995) propose that the model for the clinical psychologist is that of the “local clinical scientist,” a model with kinship to my idea of the classical nature historian.

Think of the pre-Darwin style of nature historian. He enters the forest and records the color of a sphagnum growing at the base of a particular oak. He describes the different insects and worms that move through this moss at different times of day and records that they feed at dusk and night and not when the sun is overhead. He records the date, the temperature, and the humidity. Precise locations are marked on his map. He has a set of parameters for an observational walk through the woods. Looking closely, he observes and records that a particular worm leaves a tailing that feeds a particular beetle. This beetle tunnels through the moss and lays an egg that creates a larva that digests a line of bark on the tree. The crevices formed in the bark holds the moisture that sustains and anchors the moss. This old fellow sees God’s handiwork in all this interconnection and writes that down, too. Years later, I read his journal and go have a look. The tree has long since fallen but another of the same species is near the original plot. As a post-Darwinian I, too, am awed by the interconnections but reach different conclusions about how these patterns came about. But I can follow the first fellow’s path and make use of his descriptions. I know why I disagree with him but I can see the same pattern he observed. The woods have changed some but I can use his observations when I take my look. So it is in our work as clinical psychologists. We notice and share the patterns and connections.

The scientist and the historian ground their practice on practical experience in the full sense of the empirical. They require effective practices that can be shared and taught. They require conceptual distinctions that make a difference in use or effect. Science and History require a body of public descriptions that any competent critic can address. A randomized control trial can only validate a narrow range of knowledge or effect. There are many more ways to know what is known. Reliable scientific or historical knowledge requires systematic, comprehensive observation and description grounded in conceptual clarity and not a one size method for establishing what is of intellectual or practical value. Real scientists and historians need to know why they agree or disagree with each other whatever the methods they employ, and that requires shared public discourse. Descriptive Psychology provides a neutral language for shared public discourse usable by all competent therapists whether or not they also employ a particular set of theories.

What then do we make of conventional psychology's representation of psychotherapeutic knowledge? The expression "psychobabble" comes easily to the critics of psychotherapy. Psychotherapists too often speak from a Tower of Babel. Engaging in psychotherapeutic social practices, we notice patterns, make connections, and decide how to intervene. With our clients, we construct understanding and invent social practices in the service of helping them find their various ways. In our psychotherapeutic relationships we take a variety of appropriate and individual stances as we learn to help. But we have a devil of a time representing this work to someone who did not participate. Knowledge is public but psychotherapeutic knowledge developed behind closed doors, coupled with confused theory, often seems a kind of private language, one reasonable to distrust.

Does the competent practice of psychotherapy help improve a life? I have no reason to doubt that it can and often does. Descriptive Psychology provides the distinctions and conceptual scaffold suitable to make such a claim. I hope this knowledge is not lost. I have tried to argue here that there are many varieties of sound

knowledge and competence. Some varieties easily fit into the traditional positivistic methods of ordinary science, some can be verified through randomized control trials, and some, the knowledge and skills most vital to effective psychotherapy, come from the practice of systematic and empathic observation, description, and critique. Systematic description fosters a record that can be shared and revised, facilitating the reasonable agreement and disagreement between interested parties. Agreement or disagreement becomes useful and reasonable, *suitable for negotiation*, when the discourse is based on shared empirical facts and logically proper formulation, a state of affairs that gives each party access to the other’s perspective. Descriptive Psychology offers our best hope for sharing and negotiating psychological knowledge and practice, acquisitions too valuable and hard won to lose.

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Vol. 9

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Index

Symbols

4 Bridges 35

A

A-O-C 195, 210, 219, 220, 227, 228, 268, 269. See also Actor-Observer-Critic.

abilities 51, 161, 175, 176, 260, 400

Ability 130, 344

accomplice 7, 162, 171, 176, 177, 182, 183, 185, 186

accreditation 84, 201, 269, 358, 474

acculturation 3, 66, 67, 68, 73, 82, 85

Achievement 19, 20, 51, 76, 95, 338, 417, 418, 462

achievement 7, 21, 42, 70, 146, 148, 150, 157, 229, 233, 234, 327, 344, 375, 417, 449

Achievement Description 20, 417, 418

achievement description 70, 417

Activity Description 21, 421

Actor 3, 10, 31, 32, 33, 35, 90, 91, 97, 98, 102, 107, 108, 142, 194, 195, 196, 203, 208, 209, 210, 211, 219, 224, 227, 228, 242, 268, 270, 271, 275, 308, 411, 412, 421, 423, 424, 425, 426, 461, 462

Actor-Observer-Critic 194, 203, 208, 209, 210, 219, 242, 271

actus reus 94, 98, 99, 110, 409, 410, 411, 412, 413, 420, 421, 426, 427, 428

aesthetics 5, 121

afterlife 161, 163, 167

after the fact 211, 212, 218

Agency Description 96, 97, 419, 420,

421, 422, 423, 427, 428

ahead of time 211, 214, 217, 219

algebra 340, 378, 480

ALI rule 414

alleged act 411

Alonso 293-300, 304-315

altercation 90, 91, 103, 104

altered state of consciousness 101

alternative worlds 193

American Law Institute 90, 109, 412

Anna Pavlova 10

Anthony O. Putman 39, 198, 478, 482

anza 119

arbitrary 48, 193, 221, 226, 232, 298, 339, 365, 459

Aristotle 221, 348

articulate 14, 16, 27, 42, 75, 84, 89, 94, 96, 101, 104, 130, 329, 330, 331, 334, 336, 352, 379, 406, 416, 470

articulating behavior 17

AS 370, 371, 375, 376, 377, 402

aspect 1, 2, 5, 14, 15, 17, 19, 20, 26, 29, 32, 42, 48, 49, 50, 51, 52, 53, 55, 65, 75, 79, 82, 94, 95, 109, 134, 210, 216, 229, 235, 248, 254, 260, 264, 271, 279, 332, 337, 338, 345, 361, 362, 364, 367, 368, 370, 371, 372, 373, 375, 376, 379, 380, 381, 382, 383, 384, 385, 386, 387, 389, 391, 394, 400, 410, 420, 423, 435, 457, 478, 480

aspect specification 400

assimilation 258

asymmetry 210, 211

attitude 20, 44, 46, 51, 53, 66, 68, 124, 400, 425, 470, 471

attributes 65, 365, 367, 385, 395, 405, 461

Auden 294

- authentic self 204
 author 41, 42, 43, 111, 113, 152, 155,
 156, 157, 206, 211, 275, 306,
 307, 348, 430
 awareness of right from wrong 98,
 412, 424
 aware of a risk 91, 412
- B**
- baseball 251, 328, 329, 330, 331, 347
 basic human needs 3, 82
 basic structural complexity 381
 before the fact 211, 218
 behavior 1-5, 14-22, 29, 30-39, 42,
 48-56, 60-65, 70, 74-85, 92,
 93-114, 118, 119, 122-128, 133,
 135, 139-142, 146-151, 160,
 163, 168-173, 187, 192-196,
 200, 203, 208-245, 248-255,
 261-274, 277-284, 290, 292,
 296-298, 317, 319, 325-330,
 333-357, 375-377, 384, 407,
 409, 410-429, 434, 436, 441,
 443, 445, 452, 455-463, 474,
 478
 as irrational 93
 formula 3, 75, 76, 82
 potential 1, 5, 37, 113, 119, 125, 128,
 133, 135, 168, 169, 171, 193,
 194, 195, 196, 220, 222, 232,
 239, 240, 241, 243, 248, 249,
 250, 251, 252, 253, 263, 264,
 265, 266, 271, 272, 274, 277,
 278, 279, 281, 282
- behavioral
 alternatives 93, 342, 352, 414
 pattern 172, 233, 234, 236, 290, 291,
 298
 patterns 53, 60, 74, 233, 236, 239,
 240, 252, 287, 289, 291, 298,
 301, 418
 science 20, 197, 322
- belief 107, 137, 145, 146, 151, 152,
 156, 167, 181, 229, 237, 413,
 449, 454
 beliefs 6, 44, 46, 63, 78, 143, 144, 148,
 152, 154, 167, 204, 431, 432,
 433, 451
 Bergner 6, 7, 29, 57, 79, 80, 122, 126,
 128, 143, 145, 146, 149, 152,
 154, 155, 156, 157, 195, 280,
 281, 322, 325, 355, 449, 450,
 458, 465, 475, 481
 beyond a reasonable doubt 90, 413,
 426
 BIAC 134, 142
 biology 235, 328, 362, 372, 378, 401,
 405
 blood 48, 49, 116, 291, 292, 316
 Bombelli 243
 bookkeeping 234, 239, 240, 241, 245,
 251, 252, 253
 Borges 180, 303
 bottom up 418
 boundary 7, 147, 164, 165, 166, 167,
 170, 172, 192, 231, 236, 237,
 238, 240
 condition 147, 164, 165, 166, 167,
 170, 172, 192, 231, 236, 237,
 238, 240
 BPU 362, 365, 373, 374, 375
 brain 1, 5, 113, 114, 115, 118, 129,
 130, 131, 134, 140, 194, 204,
 294, 337, 341, 475
 Brain Injury Association of Colorado
 134, 142
 brainstorming 172
 breathing 5, 26, 116, 119, 120, 121,
 127, 133, 135, 288
 BSC 383, 384, 388
 building blocks 225, 337
 business relationships 12
 butterfly effect 153, 154

C

- calculational system 415, 418
- capable of 10, 54, 98, 185, 197, 262, 341, 342, 346, 411, 412, 413, 426, 427
- capacities 51, 59, 175, 437, 438
- capacity 36, 37, 58, 90, 91, 196, 266, 344, 460
- capacity to form the intent 90
- Carolyn Zeiger 448
- Carroll 205
- case analysis 4, 95, 96
- cast 34, 171, 172, 183, 184, 250, 251, 292, 295, 298, 307, 311, 457
- casting 36, 197, 225, 226, 295, 298
- cause a particular result 91, 412
- Cavell 221
- celestial orbits 193
- cell biology 401
- ceremonies 269, 271, 428
- Cervantes 192, 198, 287, 289, 301-317
- Cheshire-Cat 239
- chess 217, 236, 239, 240, 248, 262, 279, 280, 290, 330, 336, 337, 338, 339, 341, 344, 362
- children's play 197, 258, 259
- chivalric novel 288, 316
- chivalry 291, 296, 305, 307
- choice principles 62-69, 76, 443-451
- Churchill 32, 218
- Cicero 303
- circumstances 4, 20, 21, 36, 44, 55, 58, 59, 71, 73, 78, 90, 91, 95, 97, 98, 102, 107, 126, 168, 183, 213-225, 261-263, 268-272, 277-281, 298, 300, 301, 323, 410, 411, 416, 420, 421, 428, 436, 447, 463, 469
- clinical psychology 1, 41, 42, 81, 83, 455, 476, 477, 479
- clockwork 235, 459
- codification 92, 222, 239, 252
- codify 223
- cognitive behavior therapy 434, 457, 458
- cognizant 410, 468, 470
- comedia nueva 192, 302, 303, 304, 308, 316
- communities 26, 42, 46, 49, 55, 60, 61, 82, 197, 198, 232, 257, 259, 270, 276-279, 321, 355, 361, 376, 377, 379, 381, 387, 394, 400, 409, 433, 438-451
- community 4, 7, 26-28, 33-35, 54, -56, 60, 61, 78, 84, 87, 88, 107, 108, 114, 121, 122, 129, 133, 135, 157, 162, 168, 193, 196, 197, 220, 232, 250, 257, 261-265, 270-272, 275-279, 283, 287, 292, 297, 299, 305, 308, 314, 321-324, 353, 377, 381, 400, 421-426, 433, 438, 441-447, 460
- standard 107, 422, 425, 426
- constraints 262, 283
- competence 1-3, 9-33, 38, 41-43, 46, 47, 51, 53, 59, 61, 69, 76-78, 81, 83, 95, 96, 99, 193, 196, 257, 265, 267, 269, 270, 275-283, 324, 339, 346, 417, 419, 451, 453, 454, 460, 462, 468, 470, 473, 474
- core 1, 2
- cultural 3
- human 2, 9
- competent to stand trial 101
- complete 14, 19, 28, 29, 108, 117, 124, 125, 130, 134, 136, 165, 166, 178, 179, 183, 196, 198, 205, 207, 226, 230, 240, 242, 266, 275, 289, 296, 309, 355, 365, 366, 381
- complex 10, 11, 14, 20, 21, 34, 71, 84, 109, 132, 144, 193, 204, 208,

- 243, 251, 252, 331, 333, 338,
340, 341, 363, 370, 382, 383,
384, 386, 394, 455, 462, 466
- complexity 21, 42, 48, 52, 59, 71, 79,
167, 229, 231, 234, 235, 238,
322, 331, 361, 362, 364, 373,
381, 382, 383, 384, 385, 387,
393, 400, 404, 405, 412
- concept
of community 257, 276, 283, 377
of structure 322, 361, 375, 376, 378,
380, 385
- concepts 1-7, 14-18, 41-43, 47, 48,
51, 53, 58, 59, 66, 68, -70, 74,
77-97, 109, 113, 115, 121, 122,
136, 142, 162, 172, 191, 194,
199, 215, 220, 239, 242, 247,
250, 252, 253, 258, 272, 276,
278, 321-337, 343-355, 361-
365, 378, 381, 384, 404-406,
409-411, 427-432, 441-449,
454, 455, 460-462, 467, 470,
473, 480
- conceptual
framework 4, 14, 41, 42, 77, 83, 84,
193, 326, 327, 345, 347, 348,
352
resources 87, 343, 346, 432
system 14, 42, 87, 238, 290, 291,
321, 327, 328, 343, 345, 346
- conclusions 203, 405, 434, 448, 471
- concrete
operations 258
move 338, 339, 354
behaviors 223, 354, 418
- conduct 5, 69, 71, 77, 82, 91, 121, 136,
198, 292, 326, 412, 432, 445,
450
- configuration 370, 376, 378
- conform her conduct to the require-
ments of the law 91
- congruent action 30
- consciously 32, 91, 156, 412
- conscious of 424
- consistency 8, 172, 241, 244
- constituent property matrix 389
- constituents 57, 74, 365-393, 399-402,
405
- constraints of the community 262, 283
- contemporary behavioral science 20
- context 4, 7, 21, 27, 42, 48, 52, 53, 57,
58, 61, 72, 75, 80, 165-167, 173,
175, 178, 211, 214, 218, 225,
228, 241, 246, 248, 259, 261-
263, 266, 272, 278, 296-298,
301, 316, 317, 323, 338, 350,
351, 411, 447, 450, 451, 468
- contingency 366, 370, 380, 383
- contingent 123, 370
- control 55, 93, 103, 108, 109, 121,
124-131, 134-136, 140, 259,
265, 267, 410, 413, 415, 453,
457, 458, 465, 466, 472, 473
- conventional scientific paradigms 457
- conviction 229, 306, 413, 426
- cookie cutter 184
- Copernicus 231, 232, 234, 235, 237,
240, 252, 253, 348
- core competence 1, 2, 3, 9, 11, 13, 16
- cosmology 231, 232, 332
- covert 228
- CPD 404
- criminal act 4, 97, 323, 411, 413, 419,
423, 427
- criminality 91, 321, 428
- criminal negligence 411
- criminal responsibility 89
- Critic 35, 108, 142, 156, 194, 195,
203, 208-211, 219, 220, 224,
227, 228, 242, 257, 267, 268,
269, 270, 271, 282, 301, 462,
472
- culpability 97, 98, 409, 412, 422, 424,
425

- cultural
 competence 3
 constraints 267
 displacement 3, 66, 82
 culture 3, 27, 52-77, 82, 83, 198, 259,
 262, 267, 270, 366, 449, 468
 curvature 237, 238, 248
 customs 303, 441
- D**
- danger 36, 79, 80, 90, 91, 99, 100, 104,
 105, 108, 150, 213, 216, 265,
 410
 to himself and others 93, 415
 Dante 168, 169, 171, 317, 348
 Darwin 225, 348, 471
 Davis 1, 142, 191, 195, 196, 198, 255,
 285, 321, 355, 476
 daydreaming 172
 deadly
 attack 90, 91
 force 90, 91, 104
 death 1, 6, 7, 33, 143, 144, 148-154,
 158, 161, 162, 166-168, 173-
 189, 259, 296, 308, 314, 315
 decisions 72, 78, 287, 439, 446
 definitions 48, 50, 90, 91, 365, 381
 degradation 137, 152, 158, 193, 247,
 249, 250, 269, 271, 278, 308,
 421, 422, 428, 451
 ceremony 137, 193, 247, 308, 421,
 422
 Deliberate Action 4, 47, 48, 54, 55, 87,
 92, 93, 94, 96, 98, 99, 107, 108,
 196, 212, 214, 215, 217, 219,
 222, 224, 227, 322, 323, 341,
 342, 352, 361, 375, 376, 409,
 411, 414, 415, 417, 419, 424,
 426, 427, 428, 443
 deliberation 27, 94, 99, 196, 414, 415
 Denouncer 422
 derivatives 53
 Descartes 233, 234, 243, 252-253
 describing 1-5, 13, 16-19, 28, 30, 50,
 64, 70, 71, 99, 109, 213, 214,
 259, 261, 327, 343, 347, 361,
 367, 381, 445, 455
 persons 47, 92, 345
 descriptive 85, 109, 110, 340, 343,
 347, 362, 363, 365, 366, 368,
 371, 375, 394, 429, 461
 Descriptive Psychology 1-4, 9, 13-
 23, 26, 31, 33, 38, 41, 42, 46,
 84, 87, 88, 92, 93, 94, 97, 99,
 100, 104, 107, 109, 110, 113,
 122, 126, 136-141, 162, 166,
 167, 170, 187, 191, 192, 194,
 199, 200, 203, 220, 232, 254,
 257, 258, 272, 8, 39, 85, 111,
 142, 160, 188, 201, 230, 255,
 282-285, 318-328, 331, 333,
 343, 346, 355, 356, 357, 358,
 361, 364, 365, 375, 376, 407,
 409-411, 414, 415, 418, 423,
 427-433, 441, 443, 444, 448,
 451-455, 458-460, 463, 467-482
 deterministically controlled 410
 developmental formula 3, 58, 59, 68,
 82
 diagnosis 209, 210, 211, 224, 456, 470
 Diagnostic and Statistical Manual 56,
 466
 Dickens 292
 dimension 43, 45, 46, 124, 301
 dimensional 234, 237, 336
 disoriented 174, 213
 disposition 59, 461
 dispositions 53, 338, 343, 344
 dissimilarity 386, 399
 dissociate 101
 dissociative episode 89, 102, 105
 distance between two aspects 386
 distinction 2, 65, 71, 152, 172, 192,
 197, 242, 248, 276, 280, 283,

- 310, 340, 352, 353, 354, 365,
376, 415, 443, 451
- distinguish 16, 17, 52, 63, 75, 94, 97,
203, 211, 212, 213, 216, 219,
246, 257, 268, 275, 276, 281,
327, 343, 351, 352, 365, 414,
419, 423
- Divine Comedy 168
- doing X by doing Y 95, 222, 418
- dojo 117, 130, 132, 133, 142
- Don Quixote 171, 198, 287-289, 293-
318
- DP 1-8, 41-43, 47, 50, 54, 57, 59,
65-69, 74, 77-84, 192-194,
325-327, 333-337, 340, 341, 345
-347, 349, 351, 355
- drama 34, 36, 163, 178, 181, 183, 193,
196, 197, 224, 225, 226, 261,
262, 280, 283, 287, 291, 293,
295, 302, 304, 332, 345
- dramatis personae 291, 296, 332
- dramaturgical pattern 31, 165, 166,
168, 182, 262, 291, 295, 307
- dreaming 172, 222, 224, 226, 298, 480
- dreams 7, 151, 172, 173, 174, 186,
191, 194, 200, 203, 223, 224,
226, 284, 288, 298, 299, 301,
345, 349, 479
- Drew Westin 465, 466
- drop the details 179, 304, 312
- Dulcinea 296-299, 304, 310-313, 315
- Durham rule 414
- duty to act 411
- dying 1, 7, 161-164, 167, 171, 174-
186, 189, 311, 313, 315
- Dylan Thomas 162
- dynamic 6, 84, 92, 113, 115, 122, 124,
126, 127, 136, 142, 155, 356,
357, 358, 458, 473
- E**
- economic 379, 445, 476
- Eeyore 34
- Einstein 242, 247-250, 253, 348
- eligibility 106, 257, 268-280, 283, 356,
370, 371, 380, 382, 383, 443,
463
- eligible 123, 262, 269, 271, 274, 365,
367, 371, 375, 444, 462
- elucidate 2, 94, 96, 97, 409, 423
- embodiment 51, 54, 77, 170, 176, 342,
343
- emotion 3, 12, 36, 46, 79, 79, 80, 80,
81, 82, 99, 110, 125, 131, 133,
134, 259, 463,
- emotional
behavior 79, 99, 100, 105, 109, 463
state 100, 105, 109
states 99, 121, 125
- empirical 136, 199, 215, 227, 275,
322-332, 336, 339, 350, 364,
365, 404, 434, 453, 454, 457-
465, 470-474, 480
- empirical generalizations 364, 365
- empirically supported therapies 466
- empiricism 83, 231, 240-244, 248,
249, 434
- end of life 161-167, 177, 178, 180, 184
- epicycles 233, 251, 252
- Erikson
Milton..12
E. 259, 260, 263
- ESC 384
- essential capacity 36, 37
- eternity 167, 216
- etiquette 5, 121
- EU 362
- event 59, 88, 95, 101, 114, 115, 120,
122, 123, 130, 131, 132, 166,
172, 175, 176, 213, 229, 261,
262, 289, 290, 302, 337, 347,
351, 361-373, 379, 380, 386,
417, 424, 426, 445, 448
- evidence 35, 89, 90, 101, 104, 106,

- 108, 136, 144, 146, 195, 214,
351, 411, 426, 436, 456, 457,
458, 461, 463, 464, 465, 466,
468, 470, 474
- evidence-based practice 464, 468
- evidence informed 465
- examples 41, 53, 63, 64, 80, 97, 134,
167, 175, 179, 185, 238, 263,
274, 275, 287, 289, 291, 293,
303, 305, 322, 342, 363, 373,
380, 389, 394, 400, 428, 446,
450
- existential dilemma 6
- experience 4, 6, 26, 28, 34, 35, 36, 42,
55, 56, 73, 103, 108, 118, 124,
137, 155, 156, 159, 177, 203,
207, 211, 213, 227, 253, 264,
266-269, 275-283, 460, 464,
468, 472, 478
- experiential 73, 132, 207, 332, 457
- ex post facto 180, 247, 249, 250, 292
- extraordinary competence 2, 21, 26, 38
- extreme mental or emotional distur-
bance 90, 91, 107
- F**
- Face in the Wall 4, 92, 100, 105
- fact 4, 17, 22, 23, 24, 26, 28, 31, 32,
33, 34, 35, 36, 37, 53, 83, 87,
88, 90, 92, 93, 94, 101, 103,
104, 107, 108, 123, 139, 145,
146, 148, 149, 156, 157, 175,
192, 204, 206, 207, 210, 211,
212, 213, 215, 216, 217, 218,
221, 222, 223, 225, 228, 229,
232, 235, 241, 249, 250, 262,
267, 289, 293, 296, 301, 310,
311, 316, 323, 325, 326, 327,
329, 333, 343, 344, 345, 346,
347, 348, 362, 363, 372, 394,
402, 410, 414, 415, 423, 424,
431, 434, 435, 440, 442, 447,
448, 454, 458, 459, 460, 461,
470, 473
- facts of the case 88, 92, 103
- falling in love 36
- families 72, 85, 275, 357, 361, 363,
377, 379, 389, 394, 395, 397,
399, 400, 409
- fantasy 6, 155, 156, 172
- fear behavior 100
- feedback loop 209, 210
- feedback system 195, 242
- Fernand Lubuguin 1, 3, 41, 64, 66, 67,
191, 321, 477
- Feynman 240
- fiction 287, 288, 301, 305, 343
- Fonagy 118, 465, 466
- forensic evaluation 1, 87
- formal 53, 64, 74, 75, 119, 192, 206,
254, 322, 324, 326, 345, 346,
348, 361-370, 373, 375, 377,
378, 381, 390, 394, 443, 462
- formal identifier 365
- formalization 363, 364
- formal system 361, 364, 365
- forms of 6, 37, 96, 97, 194, 231, 235,
236, 238, 241, 244, 248, 250,
257, 259, 268, 292, 322, 354,
409, 411, 418, 445, 451, 458,
470
- forms of behavior description 96, 97,
409, 411, 418
- forms of life 194, 235, 322, 354
- formulation 2, 3, 6, 16, 48, 57, 69, 71,
79, 80, 82, 84, 88, 96, 104, 107,
109, 127, 143, 144, 171, 178,
197, 224, 233, 234, 247, 252,
253, 300, 306, 318, 321, 322,
339, 341, 348, 349, 352, 353,
358, 362, 364, 371, 375, 378,
384, 405, 426, 427, 457, 473
- frame of reference 246, 247
- framework 4, 14, 29, 41, 42, 77, 83,

84, 96, 99, 109, 167, 170, 185,
192, 193, 234, 325, 326, 327,
345, 347, 348, 352, 410, 415,
434
Franciscan 308, 314, 315
Franz Liszt 10
freedom 8, 63, 65, 67, 168, 172, 176,
186, 223, 263, 287, 297, 298,
301, 317, 415, 437, 441, 442

French Lieutenant's Woman 10

Frierson 111, 430, 481

Fuentes 317

G

Garfinkel 193, 422

generalization 405, 465

genuine expression of his character
422

Geoffrey R. McKee 88, 90, 111, 410,
412, 430

geometry 233, 235, 237, 243, 353,
364, 385, 462

George Klein 456

Godwin 456, 457, 481

golf 15-20, 24, 25, 28, 30, 96, 262

graduation 133, 137, 138, 169

grammar 84, 203, 326, 328, 455, 456,
458, 459

grand narratives 457

Grisso 91, 411

guilt 4, 80, 322, 409

guilty

act 411, 420

mind 97, 98, 323, 411, 423, 424

of manslaughter 4

of murder 4

verdict 90

Gunbaum 457

gunpowder 292, 304

Gusdorff 111, 430, 481

H

Hamlet 169, 170, 178, 184, 261, 332

Hang Out Group 129

Harvey 291, 316

Hausdorff distance 404

heuristic 35, 100, 164, 217

historical particulars 236, 291, 295,
420, 461

Holmes 57, 458

Holmes-Lonergan 271

Holt 111, 430, 481

homunculi 208, 211

hospice 175, 186

human competence 2, 9

humors 287, 291, 292

I

I-Thou 161, 171, 182, 186

I've Got to Have It 313, 314

IA 19, 94, 97, 375, 376, 416, 427

I and Thou 169, 187, 297, 357

ideas 7, 114, 136, 141, 162, 203, 220,
258, 283, 289, 293, 308, 321,
405, 427, 454

Identity 3, 19, 42, 43, 44, 45, 46, 47,
50, 58, 68, 76, 81, 94, 97, 102,
279, 337, 340, 343, 413, 416,
420, 470

ideology 162, 458

imaginary companion 244, 245

imagination 196, 259, 285, 302

imaginative play 196, 198, 257-283

imitation 192, 200, 257, 264, 272, 284,
304, 308

immediate danger 90, 91

impaired 80, 98, 103, 108, 413, 427

impairment 107, 109, 138, 428

implementation 3, 41, 52, 68, 74, 75,
82, 212, 213, 222, 223, 298

impossible position 105

in a world of persons and their ways 1,
2, 9, 11, 13, 14

incapacitating conditions 413

- incomplete information 403
 individual 12, 18, 26, 28, 47, 54, 55,
 63-78, 83, 93, 94, 99, 115, 123,
 127, 138, 144, 146, 149-153,
 156, 162-164, 167, 170, 225,
 233, 250, 251, 261, 280, 295,
 330, 331, 338, 341, 343, 365,
 368, 371, 394, 399, 410, 414,
 415, 416, 420, 422, 437, 438,
 441-443, 472, 475
 infinite regress 92, 216
 initiator of the altercation 90
 insane 91, 107
 insanity 4, 89, 90, 91, 107, 413, 426,
 427, 428
 institution 53, 166, 233, 293, 296, 297
 instrumental 6, 96, 97, 146-154, 158,
 419
 instrumental value 146
 intent 90, 97, 98, 106, 322, 411-413,
 423-427
 Intentional Action 2, 19, 20, 34, 94, 95,
 323, 375, 376, 415, 416, 417,
 418, 462, 463, 467
 inter-convertibility 363
 inter-subjectivity 467
 interests 23, 51, 53, 59, 189, 198, 354,
 438, 455
 intrinsic 52, 53, 62, 74, 146-151, 158,
 169, 178, 366, 466
 intrinsic value 53, 150, 169, 178
 intuition 12, 204, 393
 invisible competence 14, 17, 22, 27
 irrational 93, 100, 109, 410
 Isaac Newton 252, 325, 327, 328, 346,
 347, 350
 Ivan Ilych 180, 181
- J**
- Jackson 179
 James Holmes 57, 458
 Jane R. Littmann 4, 87, 111, 323, 409,
 430, 477, 482
 Janet Rappoport Gusdorff 111, 430,
 481
 Jeffrey 29, 322, 355, 361, 373, 401,
 405, 476, 482
 job 30, 57, 123, 184, 194, 197, 206,
 208, 210, 214, 242, 244, 269,
 295, 327, 435
 job description 57, 269, 435
 jobs 173, 194, 195, 208, 210, 211, 242
 Joel Jeffrey 29, 322, 355, 361, 373,
 401, 405, 476, 482
Journey to Parnassus 301, 308, 310,
 314, 317
 judgment 3, 69, 72-74, 78, 82, 133,
 175, 229, 257, 260, 266, 267,
 269, 277, 283, 421, 428, 440,
 444, 463, 465, 469, 476
 paradigm 468
 Judgment Diagram 428
 judo 116, 117, 142
 justification ladder 3, 82
- K**
- Keith Davis 1, 142, 191, 195, 196,
 198, 255, 285, 321, 355, 476
 Kepler 193, 245, 248, 252, 253
 KH 19, 50, 51, 94-98, 107, 336, 337,
 352, 353, 416-428
 Kiai 116, 120, 121, 124, 125, 135, 142
 Klein 456
 knight errant 293, 296, 297, 311
 Know 19, 34, 51, 76, 95, 215, 337,
 416, 417, 462
 know 12, 17, 18, 22, 27, 28, 31, 32, 34,
 35, 38, 48, 55, 77, 82, 93, 98,
 100, 102, 103, 108, 135, 163,
 166, 169, 172, 175, 177, 178,
 183, 196, 205, 206, 207, 208,
 211, 212, 214, 217, 218, 219,
 226, 228, 229, 237, 240, 253,
 265, 274, 276, 292, 293, 294,

- 303, 304, 310, 329, 334, 341,
351, 375, 393, 415, 418, 424,
426, 434, 444, 454, 461, 462,
466, 468, 470, 471, 472
- Know How 19, 22, 27, 34, 51, 76, 95,
103, 229, 274, 292, 337, 375,
417, 462, 470
- knowingly 91, 412, 425
- knowledge 4, 20, 33, 41, 44-47, 51, 72
-74, 77, 82, 102, 211, 214, 215,
219, 221, 265, 266, 305, 321,
322, 324, 328, 329, 338, 366,
368, 376, 384, 400, 405, 425,
426, 453, 454, 457-474
- ## L
- language 2, 9, 11, 14, 17, 28, 42, 62,
76, 94, 142, 168, 191, 192, 203,
212, 213, 248, 276, 322, 328,
341, 348-353, 368, 416, 419,
444, 447-449, 454, 455, 472,
474
- language games 322
- Last Lecture 33, 39
- Lavoisier 238, 248
- law 31, 87, 91, 93, 95, 98, 104, 107,
109, 110, 210, 249, 250, 298,
322, 327, 411, 413, 419, 424,
425, 426, 429, 431, 432, 435,
438, 439, 451
- lawyer's dilemma 463
- learning history 36, 95, 99, 349, 417
- ledger 241
- legal
 concepts 94, 96, 109, 409
 definitions 90
 requirement 93, 414
- legally responsible 98, 412, 426
- level of detail 362, 365, 366, 405
- Lewis Carroll 205
- life-threatening danger 104, 105
- life episode 261
- life scope 60
- limits 48, 89, 101, 108, 170, 193, 234,
235, 237, 238, 251, 265, 323,
348, 367, 378, 460, 480
- linguistic self-regulators 462
- lion 79, 80, 100, 105, 213, 216, 254,
351
- Liszt 10
- Littmann 4, 87, 111, 323, 409, 430,
477, 482
- local clinical scientist 471, 474
- locution 2, 16, 17, 94, 276, 277, 349,
351, 354, 368, 377, 416, 419,
443, 444, 446, 447, 449
- Loewy 98, 412
- logical scope 215
- Lope de Vega 192, 302, 304, 307, 310,
313-316
- Lorena Ochoa 17
- Lorentz 246, 247, 249
- love 36, 147, 169, 195, 196, 199, 220,
295, 296, 310, 313, 349, 350,
355, 356, 365, 394, 395, 451,
476
- Lubuguin 1, 3, 41, 64, 66, 67, 191,
321, 477
- luminiferous ether 246-250
- ## M
- M'Naghten test 414
- Madariaga 198, 306, 310, 311
- managed care 456, 469
- manic-depressive illness 413
- manners 5, 7, 75, 443
- Man of La Mancha 289
- manslaughter 4, 90, 107
- marketing 22, 23, 29, 362, 386, 387
- Martini 267, 278
- Mary Roberts 111, 142, 191, 220, 430
- mathematical measure of similarity
386
- mathematics 197, 322, 336, 346, 347,

- 363, 370, 378, 383, 386, 476, 480
- maxim 92, 216, 278
- Maxim 1 92, 103, 454
- Maxim 2 424
- Maxim 5 93, 105
- maxims 5, 63, 64, 92, 458, 459
- McKee 88, 90, 111, 410, 412, 430
- meaning 6, 43, 52, 56, 61, 65, 70-76, 120, 143-149, 154-159, 249, 272, 327, 328, 336, 349, 364, 444, 454, 458, 463-465
- meaninglessness 144, 145, 150, 153, 159
- mechanism 175, 221, 224
- members 27, 44, 48, 49, 54-77, 87, 121, 130, 133-138, 142, 167, 194, 197, 209, 232, 257, 263, 265, 267, 276, 278, 283, 321, 336, 379, 381, 400, 421, 422, 443-445
- mens rea 90, 94, 98, 99, 109, 110, 409-414, 423-429
- mental
- disease or defect 91
 - retardation 413
 - state 411
- Meryl Streep 10
- metaphor 124, 206, 220, 252, 332, 455, 458, 467
- metaphysics 321, 458
- methodological 192, 239, 241, 248, 249, 466
- methodological perspective 192
- methodology 41, 66, 84, 231, 326, 355, 394, 435, 442, 469
- Michelson and Morley 246, 247, 249
- Miller 412
- Milton Erikson 12
- Miyamoto Musashi 132
- Model Penal Code of the American Law Institute 90
- molecular biology 401
- moment of truth 22, 23
- monkey nut 314
- Montesinos 299-301
- motive 94, 96, 97, 412, 420, 423
- motoric movements 93
- mottoes 63, 64
- Move 1 23
- Move 2 23
- multicultural psychology 3, 39-43, 50, 51, 54-58, 68, 81, 84, 85
- murder 4, 88-90, 98, 106, 413, 436, 437
- mystery 207, 228
- myth 159
- my world 144, 194, 214, 215, 221-227, 262, 280, 348
- N**
- Nabokov 198, 297, 301, 305, 306
- natural historian 465, 469
- natural world 233, 239, 240, 248, 250
- needs 3, 60, 71, 82, 91, 93, 98, 113, 115, 119, 128, 129, 136, 152, 153, 172, 184, 186, 226, 279, 311, 337, 353, 415, 419, 424, 440, 441
- negligence 322, 411
- negotiation 35, 284, 321, 323, 324, 432, 448, 473
- Newton 252, 325, 327, 328, 346, 347, 350
- non-deliberate 462, 468
- non-intrinsic 62
- nonsensical 208, 354
- not guilty by reason of insanity 4, 413
- novel 152, 155, 198, 287, 288, 294, 295, 300, 301, 316, 317, 348, 362, 379, 380, 406
- novellas 192, 305
- Nuland 183, 292
- number of constituents 384, 385, 386,

- 388, 391
- O**
- objects 169, 170, 171, 174, 177, 183, 193, 213, 225, 231, 235, 245, 247, 248, 261, 262, 271, 272, 290, 306, 327, 328, 343, 347, 349, 351, 361-367, 370-372, 379, 381, 384, 389, 394, 400, 403, 404, 445, 459
- observer 76, 108, 142, 246, 257, 266-271, 282, 334, 417, 462, 471
- observer-critic 142, 257, 269, 282, 462
- Observer-Describer 95, 102, 208, 209, 210, 228, 416, 462
- occurrent episodes 203, 204
- Oedipus Complex 461
- OMA 4, 5, 113, 118, 119, 125, 128, 138
- OMAR 5, 113-115, 119-139, 142, 475
- Omar Khayyam 220
- omission 411, 421, 423, 439
- opinions 204, 265
- options 18, 22, 62, 70-73, 93, 103, 113, 115, 129, 130, 193, 257, 262-266, 270, 283, 342, 352, 454
- order of the constituents 386
- ordinary
 magic 2, 9, 12 -15, 24, 31-34
 magician 10, 11, 14, 24
- organisms 47, 212, 330, 342, 406, 410, 455
- Oriental Martial Arts 4, 5, 113, 115, 124, 126, 137, 142, 475
- Oriental Martial Arts Rehabilitation 4, 5, 113, 115, 124, 126, 137, 142, 475
- originate 206, 217
- Ortega y Gasset 198, 287, 293, 307
- Ossorio 1, 11, 13, 14, 19, 20, 22, 27, 29, 31, 34, 35, 42, 47, 50, 52, 55-61, 65, 66, 70, 72, 73, 78, 79, 84, 87, 92-95, 100, 122, 127, 139, 144, 146, 147, 152, 157, 164, 167-172, 175, 180, 191, 193-198, 203, 230, 232, 234-241, 252, 257, 261-274, 278, 280, 281, 283, 289-291, 321, 326, 331, 333, 335, 336, 341, 342, 346, 347, 355, 361, 363, 364, 366, 368, 370-377, 414-418, 421, 426, 441, 444, 454-456, 458, 459, 462, 463, 468
- OU 362, 365
- our world 3, 11, 33-35, 38, 169, 261, 277, 280, 366
- overt 97, 223, 227, 228, 334, 335, 339, 411
- P**
- Paganini 10
- pain 33, 116, 117, 118, 167, 173, 182, 475
- paradigm case 3, 6, 48-50, 69, 82, 100, 143, 144, 178, 276, 349, 365, 367, 376, 380, 384, 415, 419, 462
 for emotional behavior 100
 formulation 3, 6, 48, 69, 82, 143, 144, 178
- parameters 19, 20, 34, 49, 50, 52, 61, 65, 69, 75, 76, 94, 96-98, 276, 336, 338-340, 344, 375, 376, 377, 409, 410, 416-421, 424, 426 -428, 443, 445, 447, 462, 463, 471
 for behavior 50
 of intentional action 94, 416
- parametric analysis 3, 49, 50, 52, 61, 65, 69, 75, 82, 94, 224, 323, 336, 338, 340, 343, 409, 411, 415, 416, 420
- parametric descriptions of culture 75
- Parent-Adult-Child 209

- part-whole 3, 69-71, 75, 82
- participate 55, 61, 124, 154, 192, 217, 219, 262, 263, 265, 271, 280, 431, 472
- pathological state 3, 55, 60, 79, 82, 122
- Paul Zeiger 255, 285, 323, 431, 480
- Pausch 33, 34, 36
- pawn 236, 248, 279, 290, 341
- PC 19, 20, 50, 51, 94-98, 107, 213-215, 336-343, 352, 353, 375, 376, 416-428
- PC-C model 213, 428
- PCF 6, 48, 49, 160
- PD 389, 392, 393, 404
- Pepper 455
- perception 213, 219, 451
- Performance 15, 19, 20, 21, 22, 51, 76, 95, 337, 353, 417, 420, 462
- performance 2, 9, 10, 15, 18, 20, 21, 24, 25, 62, 96, 99, 108, 169, 184, 263, 264, 298, 321, 339, 349, 350, 354, 366, 375, 411, 420, 454, 462
- perpetrator 97, 156, 157, 421, 425
- Person 4, 47, 52, 58, 65, 66, 92, 93, 95, 96, 97, 98, 114, 141, 151, 178, 189, 204, 211, 213, 219, 232, 238, 239, 242, 322, 325, 326, 328, 331, 333, 341, 343, 354, 415, 417, 419, 420, 424, 427, 428, 452, 455, 459
- centered 326, 332, 333
- describing 47, 92, 345
- Concept 54, 232, 238, 239, 242, 444
- Personal Characteristics 13, 20, 34, 51, 54, 58, 59, 66, 76, 77, 141, 322, 338, 339, 344, 356, 376, 400, 410, 417, 468
- personal development 47, 58, 61
- Person Concept 54, 232, 238, 239, 242, 444
- perspective switching 267, 268
- Peter Fonagy 118, 465, 466
- PGA 15, 16, 18
- phlogiston 238, 239, 240, 248, 250
- physical sciences 192, 197, 362
- physics 176, 235, 242, 253-255, 262, 290, 328, 336, 363, 378, 379
- Piaget 197, 258, 259, 274, 275
- pictorial perspective 191, 247
- picture of Winston Churchill 32, 218
- Place 187, 200, 255, 284, 318, 458, 459, 460, 468, 474
- placeholder 163, 233, 239
- play 24, 45, 123, 125, 128, 138, 139, 166, 168-170, 173, 176-180, 184, 196-201, 216, 225, 226, 239, 251, 257-285, 290-293, 295, 314, 328-332, 339, 341, 350, 387, 442-456, 477
- practice 269, 270, 272, 274
- world 271
- poetry 192, 287, 304, 309, 346, 363, 378
- Poincaré 246, 247, 249
- policies 63, 64, 445
- possibilities 37, 54, 101, 124, 170, 182, 185, 192-194, 208, 210, 217, 221, 222, 226, 234, 238, 239, 264, 287, 288, 306, 316, 348, 403, 438
- possible
- verdicts 4, 87, 88, 90, 92, 107
- worlds 191, 192
- posture 5, 116, 119, 120, 127, 133, 135, 178
- powers 10, 53, 71, 73, 74, 82, 344, 456
- practices 5, 35, 55, 56, 61, 62, 68, 69, 74-78, 116-121, 124, 133, 135, 137, 146, 154, 192-194, 197, 198, 217, 219, 225, 226, 233, 235, 248, 250, 257, 261-271, 277, 278, 283, 290-292, 307,

- 322-324, 331, 354, 373, 382,
383, 400, 431, 432, 440, 443-
446, 451-460, 465, 466, 469,
470, 472
- pragmatic 81, 83, 113, 115, 170, 223,
459
- pragmatic criterion 459
- pre-empirically 465
- predicting the weather 207
- predictive 207
- preponderance of evidence 90
- prescription 209, 210, 211, 225, 300
- Priestley 238, 247
- principle 42, 54, 61, 65, 67, 76, 78,
84, 93, 176, 196, 228, 246, 247,
325, 337, 340, 349, 381, 414,
422, 440, 441, 442, 445, 449
- problem
 formulation 224, 300
 solution 224
 solving 172, 178, 194, 222, 224, 227
- procedure 18, 48, 221, 225, 252, 336,
387
- process 1, 3, 26, 48, 51, 59, 66-71, 76,
82, 95, 96, 193-195, 204, 205,
207, 213, 217, 224, 236, 257,
290, 337, 339, 361-377, 380,
386, 387, 417, 419, 432, 434,
440, 445, 448, 449, 451
- process description 70, 71, 224, 374
- processes 51, 170, 171, 177, 183, 213,
245, 247, 337, 339, 347, 351,
356, 361, 362, 363, 364, 366,
370, 371, 372, 374, 376, 379,
381, 389, 394, 445
- produced it as 32, 218
- professions 379
- properties
 of the aspects 386
 of the constituents 367, 386, 393,
400
- provocation 80, 81, 297, 413
- prudent 102, 109
- psychoanalysis 456-458, 467, 473,
474, 480
- psychoanalyst 462, 467, 479
- psychological
 theories 93, 99, 186, 209, 348
 trauma 100, 101, 105, 122
- psychopathology 55, 56, 77, 326, 328,
355, 475
- psychopharmacology 457, 458
- psychosis 89, 413, 427
- psychotherapy 6, 27, 42, 69-72, 77-83,
127, 137, 143, 149, 154, 158-
160, 180, 201, 324, 326, 355,
356, 434, 453, 455-458, 463 -,
475, 477, 480
- Ptolemy 232, 251, 252
- publicly observable variables 97, 411
- pulling the trigger 108
- purposely 91, 96, 394, 412, 419, 425
- Putman 5, 9, 22, 29, 61, 193, 198, 276,
279, 355, 373, 377, 405, 441,
443, 478, 482
- putt 9, 24, 25
- putting on Hamlet 169
- Q**
- quantum mechanics 242, 243, 253
- R**
- randomized control trials 453, 458,
465, 473
- Randy Pausch 33, 34, 36
- rational 99, 100, 107, 233, 235, 243,
463
- RCT 465-469
- reading off the features 214, 215
- reading the green 24-26
- real 1, 3, 5, 7, 11, 12, 17, 22, 23, 32-
38, 42, 65, 72, 73, 75, 77, 80,
116, 124, 125, 133, 136, 138,

- 139, 153, 161, 167, 169-173, 176-178, 181, 183, 185, 191, 192, 197, 199, 205, 215, 223, 224, 226, 231-254, 270, 278, 281, 287-301, 304-308, 311-317, 321-323, 337, 345, 347, 348, 354, 361, 383, 407, 410, 429, 436, 438, 449, 453, 454, 458, 474, 476
- reality 7, 29, 79-81, 99-101, 105, 123, 124, 143, 144, 170-178, 182, 185, 186, 192, 197, 223, 226, 231, 239-245, 248, 249, 262, 267, 275, 287, 289, 298, 301, 311, 332, 333, 345, 348, 363
- reality basis 79, 80, 81, 99, 100, 105
- reality constraint 178, 182
- real world 7, 34, 42, 124, 161, 167, 169-172, 178, 181, 183, 185, 191, 192, 197, 199, 215, 226, 231-254, 278, 281, 287-293, 296-301, 307, 315-317, 321, 322, 345, 347, 348, 354, 361, 383, 407, 410, 429, 449, 453, 474, 476
- recipient 207, 208, 219
- recklessly 90, 91, 164, 189, 412, 425
- reconstruct 124, 194, 214, 220, 222, 264, 280, 281
- reconstructing 5, 221, 264, 280
- Red Queen 239
- referent 248
- reflexive 207, 208, 346, 348
- regulating critic 267, 271
- relationship change 26
- Relationship Change Formula 2, 29, 30
- relationship descriptions 28, 29
- Relationship Formula 2, 29, 30, 463
- relationship magic 29, 30
- relationship magicians 27, 28
- relationships 3, 9, 11, 12, 15, 24-30, 47, 57, 60, 61, 64, 69, 71, 72, 75, 82, 123, 169-171, 181, 187, 196, 204, 209, 235, 253, 262, 265, 266, 270-274, 277, 279, 282, 347, 351, 355, 357, 362-372, 377-386, 390-395, 405, 410, 436, 443, 451, 459, 463, 472, 476
- relationship supercomputers 28
- relativity 7, 48, 163, 182, 187, 246, 247, 249, 250, 319, 332, 349
- relevant learning history 95, 417
- reliably common 13, 18, 20
- resilience 272
- responsibility 89, 117, 322, 379, 395, 411, 415, 427, 429, 480
- responsibility for criminal actions 411
- restriction 55, 239, 243, 249, 250, 253, 352, 453, 454, 465
- retirement 169
- retreat 90, 91, 103, 104, 105
- revolutions 192, 197, 253
- ribosomes 401
- Richard III 173, 187
- Richard Singer 323, 431, 444
- right of protection 90
- Roberts 7, 111, 142, 155, 160, 161, 173, 178, 183, 187, 191, 192, 193, 195, 197, 198, 201, 220, 222, 230, 231, 244, 255, 261, 264, 265, 278, 281, 284, 285, 287, 299, 319, 355, 356, 357, 358, 406, 430, 479, 482
- role structure 400
- root metaphor 455, 458
- S**
- samurai 121, 132
- Sancho 198, 288, 294-297, 300, 303-305, 307, 308, 310-312, 314, 315
- SAS 362-365
- SAU 362, 365

- scenario 7, 79, 101, 151, 155, 171, 172, 177, 179, 180, 182, 183, 185, 186, 260, 269, 298, 442
- scenario-creator 183
- Schwartz 1, 191, 195, 321, 324, 355, 453, 458, 461, 462, 470, 479, 480
- science 8, 20, 33, 54, 159, 167, 197, 198, 240, 248, 252, 254, 255, 322-333, 339, 343, 345, 349, 350, 358, 433, 434, 435, 436, 441, 444, 453, 456, 464, 469, 473, 475, 476, 479, 483
- Scrooge 292
- seiza 119, 120
- self-concept 57, 84, 106, 139, 473
- self-defense 4, 90, 91, 104-107, 115, 116, 436, 438
- self-esteem 152, 153, 156, 157
- self status assigning 278, 283
- sensei 116-121, 125, 129, 137, 138
- sensei-therapist 129
- sensitivity 3, 45, 69, 72-74, 82, 175, 266, 279, 469
- sequential 70, 210, 219
- severe mental illness 89, 101, 108
- Shakespeare 150, 173, 174, 187, 317, 348
- shooting 88, 89, 90, 102, 103, 105, 108, 206, 344, 412
- Significance 3, 7, 19, 20, 21, 34, 51, 52, 55, 67, 74, 75, 76, 79, 82, 88, 95, 96, 97, 99, 108, 148, 170, 174, 175, 178, 179, 180, 181, 212, 222, 223, 226, 243, 246, 247, 248, 250, 252, 257, 258, 262, 263, 265, 266, 267, 279, 282, 287, 289, 332, 338, 339, 345, 349, 376, 409, 418, 420, 423, 441, 446, 462, 469
- significant restriction 55
- similarity 361, 362, 364, 373, 378, 381, 383-387, 393 -395, 400-406, 449
- simultaneous 210
- Singer
D.G. & J.L. 258, 259, 483
Richard 323, 431, 444, 480
- situational judgments 263, 266
- skills 3, 20, 41, 43, 45, 46, 51, 69, 76, 77, 96, 116, 127, 269, 283, 285, 321, 344, 375, 424, 432, 460, 469, 473
- slogans 63, 64, 445
- SNP 65, 66, 68, 76, 77
- social constructions 194, 459
- social practices 55, 56, 61, 62, 68, 69, 74-76, 119, 124, 133, 135, 192, 194, 197, 198, 217, 219, 225, 226, 233, 248, 250, 257, 261-271, 278, 283, 290-292, 322, 354, 443-445, 455, 458, 460, 469, 470, 472
- social structure 60, 62, 376, 379, 394
- societies 60, 379, 446, 451
- society 44, 60, 125, 131, 185, 198, 259, 263, 283, 318, 364, 373, 379, 409, 410, 431, 432, 437, 438, 439, 442, 450
- Sonja Bunke Holt 111, 430, 481
- special person 6, 7, 157, 176
- special relativity 246,-250, 349
- specifically personal 13, 18
- specific intent crimes 98, 413
- spinal cord injuries 1, 5, 113
- spiritual 42, 127, 146, 148, 149, 151, 158, 215, 245, 315, 440, 446
- spiritual value 146, 148, 149
- stages 62, 164, 189, 219, 258, 266, 282, 371, 372, 439, 447, 448, 449
- Standard Normal Person 3, 65, 82
- Standard Normal Relationship 2, 27,

- 28, 29
standing conditions 203, 204
Stanley Cavell 221
state of affairs 6, 50, 76, 79, 94, 146,
150, 203, 214, 216, 229, 323,
335-339, 346, 351, 361-377,
380, 386, 389, 416, 445, 453,
463, 470, 473
state of mind 97, 98, 107, 411, 412,
424
states 51, 54, 58, 95, 98, 99, 105, 106,
120, 121, 125, 157, 193, 213,
215, 216, 220, 232, 260-264,
279, 307, 310, 338, 339, 344,
346, 347, 349, 351, 355, 358,
362, 363, 364, 366, 370-378,
383, 412, 416, 417, 422, 425,
427, 445, 448, 463
status 3, 5, 6, 7, 20, 35, 42, 57, 82, 84,
89, 92, 106, 113-115, 122-128,
131, 133, 135-139, 142, 155,
157, 174, 177, 178, 183, 184,
187, 189, 195, 201, 225, 226,
233, 238, 239, 243, 245, 249-
252, 255, 257, 267-284, 289,
292, 296, 302, 304-307, 314,
316, 317, 357, 358, 381, 442,
443, 446, 447, 451, 458, 461,
468, 470, 473, 474, 479
status assigner 128, 137, 183, 269,
271-278
status disruption 278
status dynamic maxims 458
status of status assigner 272
Stephen Pepper 455
Stonewall Jackson 179
stories 68, 186, 187, 191, 260, 261,
263, 270-275, 280, 281, 318,
333, 433, 435, 436, 445
stretching out procedures 121
Stricker 471
structural complexity 361, 362, 364,
381, 382, 384, 404
structural distance 386, 389, 392, 399,
403
structural similarity 361, 362, 378,
381, 383, 387, 400, 404, 405
structure 7, 43, 52, 60-62, 70, 73, 128,
138, 167-169, 171, 192, 207,
209, 210, 212, 215, 219-222,
231, 234, 235, 236, 243-245,
253, 291, 292, 306, 316, 321,
322, 345, 361-366, 370, 373-
386, 391, 393, 394, 400, 403-
406
structure of the constituents 386
structure of the novel 379
styles 45, 51, 400
substantive 19, 25, 193, 208, 239, 248
system 14, 29, 42, 44, 87, 123, 131,
136, 153, 195, 204, 206, 232,
234, 235, 238, 240-245, 251-
253, 264, 290, 291, 321, 323,
327, 328, 336, 340, 343, 345-
347, 361, 364-366, 378, 384,
411, 415, 418, 434
systematic framework 170, 410, 415
- ## T
- Tai Chi 5, 116, 121, 128, 135, 140
task analysis 3, 70, 71, 82, 194, 222
taxonomy 234, 291
TBI 5, 113, 114, 118, 122, 130, 131,
132, 135, 136, 140, 142, 475
Tennis Game 164
the conceptual, the empirical, and the
theoretical 460
theory 23, 42, 78, 109, 141, 164, 189,
197, 200, 238, 240, 246-250,
292, 326-328, 346-350, 355,
363, 378, 435, 454, 456, 457,
461, 465, 467, 472, 473, 477,
480
the path 115, 117, 125, 126, 133, 139

- The Tennis Game 164
the way 12, 15, 20, 24-26, 117, 121,
124-133, 139, 142, 163, 166,
167, 174, 176, 182-184, 197,
222, 248, 249, 264, 275, 291,
350, 366, 375, 420, 437, 444,
454, 455
Thomas 162
thoughts 128, 203-207, 210, 214, 219,
220, 227, 228
threaten 102, 216
Tigger 34, 36, 37
Tolstoy 6, 143-154, 157, 180, 181
Tolstoyan world view 143, 158
top-down 418
totality 61, 75, 147, 192, 231-235, 244,
245, 250, 253, 280, 339, 364,
454
traits 51, 53, 400
transcendental 187, 205, 207, 284
transformation 49, 124, 246, 249, 260,
274, 362
traumatic abuse 102
traumatic brain injuries 1, 5, 113, 130
Trials of Persiles 315
true 11, 17, 18, 19, 26, 35, 37, 175,
195, 206, 240, 241, 244, 275,
276, 333, 381, 434, 435
trusted source 214
truth 15, 22, 23, 33, 83, 139, 221, 231,
237, 241, 303, 321, 325, 330,
333, 349, 433, 434, 436, 449
- U**
- ultimate 42, 69, 75, 78, 147-151, 156,
231, 235, 236, 433, 446
uncertain status 7, 177, 178, 187, 201,
255, 278, 284, 479
unconscious 179, 196, 342, 415, 461
understanding persons and behavior 93
unintended consequences 94, 108, 416
universality 241, 249, 441
universe 26, 215, 236, 237, 238, 240,
253, 292, 331, 332, 379, 435,
436
unlawful killing 90, 107
- V**
- values 43-45, 51-54, 62-65, 68, 74, 75,
78, 81-83, 115, 116, 148, 216,
241, 304, 321, 336, 339, 340,
344, 388-392, 396-399, 404,
405, 416, 417, 422, 425, 427,
428, 447, 449, 468
value statements 63, 445
verbal behavior 2, 16, 229, 334, 347-
349, 352-354, 377
version 66, 76, 188, 198, 204, 215,
216, 230, 255, 263, 270, 274,
281, 319, 372, 434, 465
versions 194, 261, 264, 265, 279, 281,
371, 372, 387, 464
vertigo 236
viability 60, 264, 455
violation of a community standard 107
voluntarily 98, 411, 412, 426
- W**
- W. H. Auden 294
want 2, 11, 18, 22, 27, 28, 33-35, 97,
115, 128, 150, 162, 166-168,
178, 184, 225, 228, 262, 291,
293, 294, 305, 312, 340, 375,
385, 423-425, 433, 461, 462,
464, 469
warnings and reminders 63, 92
way of life 48, 72, 152, 166, 167, 233,
291, 314, 344
why people do what they do 92
Winnie-the-Pooh 33
Winston Churchill 32, 218
wish fulfillment 224
Witness 422, 431

- Wittgenstein 34, 149, 191, 193, 221,
 235, 236, 321, 322, 346, 348,
 349, 454-456, 459, 464, 468
- wolves are dangerous 214
- world
 construction 35, 191-197, 203, 214,
 215, 220
 creator 184
 creators 171, 264, 287, 289, 290
 maintenance 220, 222, 224
 reconstruction 160, 187, 191, 201,
 203, 220, 222, 223, 224, 225,
 230, 283, 284, 319, 357
 transformations 124
- wrongdoing 80, 297
- wrongfulness 91
- Wynn Schwartz 1, 191, 195, 321, 324,
 355, 453, 458, 461, 462, 470,
 479, 480

Y

- Yeats 161-163
 Yoda 33

Z

- Zeiger 255, 285, 323, 431, 448, 480