

ADVANCES IN  
DESCRIPTIVE  
PSYCHOLOGY

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# ADVANCES IN DESCRIPTIVE PSYCHOLOGY

*Editors:* ANTHONY O. PUTMAN  
*Descriptive Systems*  
*Ann Arbor, Michigan*

KEITH E. DAVIS  
*Department of Psychology*  
*University of South Carolina*

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## FOREWORD

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This fifth volume of *Advances in Descriptive Psychology* has been a long and difficult labor for many people. The manuscripts themselves took an unusually long time to come together; then, just as the papers were ready for editing, changes in the business and technology of publishing led the former publisher to delay producing the work. When we were unable to negotiate an acceptable publication schedule, the Society for Descriptive Psychology chose to terminate its publishing agreement with the former publisher and create our own publishing branch, Descriptive Psychology Press. Volume 5 is the first to be published by this house.

This change could not have been accomplished without the sustained and dedicated efforts of many individuals. Keith Davis guided the Society through the difficult process of negotiating with the former publisher, and successfully reached a mutually acceptable agreement for moving

forward. He also led the effort to raise the capital to launch Descriptive Psychology Press. We are all grateful to him for his dedication and persistence in the face of discouragement and adversity.

The officers of the Society, and the members of the Editorial Board of *Advances*, were unflagging in their support of this effort. In particular, we would like to acknowledge the efforts of Sonja Holt and Carolyn Zeiger in helping Descriptive Psychology Press come into existence.

Lisa Putman volunteered many hours to finding and negotiating with the printers and production professionals who made Volume 5 the physically excellent book you hold in your hand. Tom Bowen of WordServices did an outstandingly professional job of producing the camera-ready mechanicals for the printers.

Once again we are indebted to Mary Shideler, who copy-edited many papers, and single-handedly marked the entire Volume for indexing. The Society is indeed fortunate to have a member of Mary's talents, dedication and unfailing generosity.

Future volumes of *Advances in Descriptive Psychology* will be published by Descriptive Psychology Press. Volume 6 should be available in late 1990; Volume 7 is scheduled for 1992. Copies of Volumes 1-5 are available from The Society for Descriptive Psychology, 1705 14th St., Suite 254, Boulder, Colorado 80302.

Anthony O. Putman  
Co-Editor, Volume 5



## **PART I**

# **CONTRIBUTIONS TO ORGANIZATIONS AND TECHNOLOGY**

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# INTRODUCTION

Anthony O. Putman and Keith E. Davis

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The theme of this fifth volume of *Advances in Descriptive Psychology* was determined several years ago, by one of those off-hand remarks that proceed unintentionally momentous. A member of the Society for Descriptive Psychology was congratulating the *Advances* Editor on the recently-issued volume, and happened to observe that clinical topics comprised quite a large proportion of the chapters. Someone observed that it might be useful to give readers a more balanced view of the range and depth of work by Descriptive Psychologists, and then someone else made the momentous suggestion: "Why don't we devote a whole volume of *Advances* to that other stuff—you know, the non-clinical work." In due course of time, this Volume 5 has emerged as suggested primarily, albeit not exclusively, devoted to "the other stuff". As it turns out, the "other stuff" proved to be a deep and diverse set indeed.

Such depth and diversity may surprise the reader who is encountering Descriptive Psychology for the first time. This says a great deal about what we have come to expect (one might even say "settle for") from behavioral science. A collection of articles which share a theoretical

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framework is expected to be "about" something manageably narrow: emotional disorders, say, or family functioning. Our expectations in this regard reflect our often unstated conviction that psychological theories at best have a limited span of utility; like scaffolding, they are made with a particular construction in mind, and it rarely pays to transport them far from their original site. With such underlying convictions, it seems perfectly normal when confronted with a volume like the present one, which offers in-depth contributions on topics ranging from the foundations of spirituality, through formulations of organizational practices, to methods for engineering computer software (and a great deal more in between) to ask in bafflement if not incredulity: "What on earth do these have in common?"

What they have in common, of course, is that they are all part of that great diverse domain called human behavior. Descriptive Psychology was founded over twenty-five years ago on Peter Ossorio's steadfast insistence on taking seriously a proposition to which many others paid lip-service, namely: The test of adequacy of a behavioral science is its ability to encompass human behavior—all of human behavior—without deletion or distortion. And when he said "all human behavior" Ossorio meant *all* human behavior, not just those behaviors that traditionally interest professional psychologists. So the conceptual and intellectual apparatus of Descriptive Psychology was created from the start to give us access to this entire vast domain, within which the practitioners of Descriptive Psychology have roamed far and well. The purpose of this Volume 5 of *Advances* is to give the reader an in-depth appreciation of the range of topics to which Descriptive Psychology has made important contributions, along with a view of the quality of the contributions it makes.

The Volume divides naturally into two sections. The first section contains a collection of papers that address very practical concerns in the worlds of work, enterprise and technology. The topics include concepts for understanding organizations and their management; specific methods for improving organizational functioning; frameworks for understanding technology, its diffusion across cultures and its development; a broad and detailed agenda for the field of artificial intelligence; and specific methods for accomplishing advanced work in the creation of computer software. Each paper and its contribution is firmly grounded in Descriptive Psychology; indeed, it will become evident to the reader that none of them could have been accomplished without such grounding. Further, these papers exemplify one of Descriptive Psychology's more distinctive characteristics: the concern for conceptual analysis in the service of practical application, which leads to a seamless blending of theory and practice. Practical needs lead to

conceptualization; conceptual analysis enables practical accomplishment, and the gap between "pure" and "applied" science is never opened. As Ossorio insisted from the very beginning (Ossorio, 1967/1981), and the present volume confirms, this is only as it should be.

## ORGANIZATIONS AND MANAGEMENT

Putman's paper on "Organizations" begins this section. In this paper Putman addresses fundamental questions regarding organizations, offering a fresh look at such issues as: What is an organization? His formulation makes use of the technical device of parametric analysis (Ossorio, 1979/1981) and his own earlier conceptual analysis of the notion of a human community (Putman, 1981). In his view an organization is straight forwardly a human community and as such different types of organizations will be marked by the differences in the values of the fundamental parameters of communities: members, social practices, statuses, choice principles, concepts, locutions, and worlds. What distinguishes an organization from a community is that it exists for the accomplishment of a mission, engages in a set of core social practices to accomplish that mission, and has the distinctive status of manager which is invested with the authority to accomplish the mission. A quotation from one of the classic alternatives—open systems theory—shows immediately how different these formulations are:

The open systems approach begins by identifying and mapping repeated cycles of input, transformation, output, and renewed input which comprise the organizational pattern. This approach to organizations represents the adaptation of work in biology and in the physical sciences . . . .

Organizations as special class of open systems have properties of their own, but they share other properties in common with all open systems. These include the importation of energy from the environment, the throughput or transformation of the imported energy into some product form that is characteristic of the system, the exporting of that product into the environment, and the reenergizing of the system from sources in the environment. (Katz & Kahn, 1978, p. 33).

It would come as no surprise to find that approaching organizations from the open systems view shows confusion about just what aspects of the organization parallel the features of systems theory and that the logic of open systems tends to overwhelm the logic of organizations, for the latter is never clearly explicated as a separate domain.

One central contribution of Putman's formulation is that he shows clearly why the concept of mission is central to the understanding and change of organizations. It is the existence of a mission that provides the rationale for management's authority, for the subordination of individual

standards—both ethical and prudential—by which to test the manager's performance. On these matters Putman helps us to understand more fully why existing social practices make the sense that they do, and that is no small accomplishment—particularly after one has been smothered under the conceptual fog of open systems theory.

One basis for the appeal of the systems point of view is the notion that an organization is whole and that changes in one part (of the system) will almost inevitably affect other parts of the organization. As theorists have operated with this insight, they quickly come up against the problem, "What kind of system?" and "How do these interacting subsystems interface with each other?" Putman avoids this last kind of puzzle by giving an alternative account of how the different systems that characterize organizations are related to each other.

Each organization is in reality a unified whole, within which exist many different worlds. These separate worlds are not related to one another the way pieces of a jigsaw puzzle are related; they are related in the same way different engineering drawings of the same camshaft are related, or different eyewitness accounts of the same event are related. That is, the worlds of an organization represent the whole organization as seen from different perspectives. (Putman, 1990, p. 11, this volume).

He proposes that every organization has three alternative worlds from which its operation and structure can be viewed: The world of machines, the world of people, and the world of numbers. Putman's elaboration of these three worlds is one of the most interesting parts of this chapter and one that has already been of great use to practitioners of organizational development. It clarifies the basis of some of the most persistent and potentially divisive conflicts within organizations—namely that different members of the organization see it through fundamentally different lenses and they would not be taking their respective roles seriously if they did not give a priority to their point of view. Coming to understand each perspective better and being able to shift from perspective to perspective is one of the potential gains of taking Putman's formulation seriously.

Finally, a major bonus of this chapter is that Putman develops specific methods for three kinds of organizational interventions. The first is the improvement of productivity, in which he takes advantage of Ossorio's 1969/1981 analysis of intentional action into the five parameters of Know, Want, Know How, Performance, and Achievement and his elaboration of the concept of status and status dynamics via the concept of Eligibility. Putman makes a compelling case that by taking account of the barriers of Achievement from these five parameters, one can account for the failures to achieve at the desired level and develop steps to remedy the situation. His contributions to the analysis of job satisfaction

remedy the situation. His contributions to the analysis of job satisfaction and to the clarification and renewal of organization missions are equally interesting. Indeed Putman's chapter is a testimony to Lewin's oft-quoted comment: "There is nothing so practical as a good theory."

Laurie Bergner's paper, "The Use of the Status Concept in Developing Effective Relationships Between Police Chiefs and Officers", is a tightly-focused application of some fundamental concepts of Descriptive Psychology to one important task in a very specific context. Her central thesis states that police chiefs can become powerful assigners of positive statuses to their officers, and thereby improve the officers' performance. Bergner develops her thesis very clearly into a series of policies for acting on it, a move which as been used often to good effect in the clinical writings of Descriptive Psychologists (e.g., Ossorio, 1976; Driscoll, 1981). While Bergner's paper is explicitly written with police departments in mind, its central thesis and policies need little translation to be of value to leaders within any organization.

## TECHNOLOGY AND CULTURE

The next paper in this section provides a nice bridge between the organizational focus of the two papers preceding it and the technological focus of the three papers following it. James M. Orvik begins his consideration of "Technology Transfer and Culture Change" with some evocative and memorable vignettes of the crosscultural impact of technological innovation (one does not readily forget the image of the Eskimo boy whose broken jaw made him a "tertiary consumer" of the television series "Kung Fu"). Using these examples as springboards, Orvik goes on to consider the place of technology across cultures on the recipient culture.

The situations Orvik considers are often complex, and the "standard wisdom" regarding them scanty or misleading. Accordingly, he makes substantial use of the formal resources of Descriptive Psychology—in particular, the Paradigm Case Formulation (Ossorio, 1979/1981)—to clarify his topics. His conceptual analysis points the way toward future contributions to the overall topic of culture change; the clarity and insight of this current paper whets the appetite for future ones.

## ADVANCING THE STATE OF THE SOFTWARE ARTS

The final three papers in this section continue a long tradition within Descriptive Psychology of advancing the state-of-the-art in the development and utilization of computer software. Each addresses a different part of the software domain; together they demonstrate the

substantial difference it makes to approach software from this perspective and with these concepts.

Putman's "Artificial Persons" is an ambitious paper, in that it attempts nothing less than a thorough-going reformulation of the enterprise popularly known as "AI"—artificial intelligence. Putman begins by detailing the history of contributions Descriptive Psychologists have made to AI, noting that it comprises a very substantial body of work that is virtually unknown to the AI community at large. He then goes on to present new conceptualizations that are explicitly meant to provide collectively an overview of the types of contribution this approach can make to AI.

"Artificial Persons" is divided into four more-or-less independent parts. The first, "Specifications for an Artificial Person" attempts to delineate the subject matter for AI. It offers specifications for what would qualify as an "artificial person" (or, as Ossorio (1980/1982) might put it, a person with computer embodiment). Putman establishes what amounts to standards of adequacy and a scope of effort for the AI field. In the course of elaborating the specifications, he gives clear and understandable explanations of many of the basic concepts of Descriptive Psychology; one *Advances* reader of the paper called these explanations "superbly readable". The second part explores the statuses within our work communities that an artificial person might fill; the third, "An Epistemology for Artificial Persons", builds on the foundations established by Ossorio in "What Actually Happens" (Ossorio, 1971/1978) to present a fundamental logic for knowing about the real world. The fourth and final part offers some technically detailed means for handling real-world inference; its title, "Some Algorithms of Common Sense" might serve as a single phrase to sum up the flavor of the Descriptive Psychological school of AI.

The next paper, Paul Zieger's "Human Systems Issues in Software Engineering", is the rare specialist's paper that is both clear and fascinating to the lay reader. Zieger distills decades of experience as a software engineer into a wise and thought-provoking guide to that demanding profession. The paper is meant for software engineers; as such, it offers insightful procedures and reminders which are rooted in the realization that software, above all, must be understood as part of a human system. But the paper is also meant for the person who, as Zieger puts it, has a "modicum of curiosity about what goes on behind the closed doors of the shops where software is produced". Zieger's clarity and refreshing lack of jargon makes the paper easily accessible and equally rewarding to both audiences.

The section concludes with the latest in an on-going series of papers by Joe Jeffrey, "Knowledge Engineering: Theory and Practice". Jeffrey



The section concludes with the latest in an on-going series of papers by Joe Jeffrey, "Knowledge Engineering: Theory and Practice". Jeffrey published the first paper in *Advances* that was explicitly concerned with Descriptive Psychology's contribution to computing (Jeffrey, 1981). He has developed over the years a well-deserved reputation within the Society as the person to ask when you want complex technical matters explained in ordinary English. That lack of technical pretension while presenting complex material stands him (and the reader) in good stead in the present paper.

Knowledge engineering refers to a recently growing segment of AI which concerns itself with "capturing" real-world expertise and making it available via software programs, known as "knowledge-based" or "expert" systems. It is an inexact art in a world of exact technology. Jeffrey is eminently qualified to write on the topic, having both designed knowledge engineering systems (Jeffrey & Putman, 1983) and served as lead knowledge engineer on at least a half-dozen large systems in the past ten years.

Jeffrey's approach to knowledge engineering departs from more traditional approaches in two important ways. He sees knowledge engineering as fundamentally a human, psychological enterprise rather than a technical one, and his primary concern is action-oriented—helping people to *do*—as contrasted with the more common fact orientation, which helps people to *know*. From these departure points, using the technical apparatus of Descriptive Psychology, he presents a powerful theory and practice for knowledge engineering. This is a diverse and deep set of papers indeed—but filled with exciting insights and powerful procedures. We hope the reader enjoys this sampling of "the other stuff".

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# ORGANIZATIONS

Anthony O. Putman

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## ABSTRACT

Organizations are among the most important and complex phenomena of the twentieth century. This paper takes a fresh look at organizations both conceptually and pragmatically, using the perspective and conceptual resources of Descriptive Psychology. A detailed paradigm is developed which is rooted in the view of organizations as a particular type of human community. Within this paradigm a number of issues are discussed, ranging from ethical concerns of power and authority to means of distinguishing different worlds within the organization. In a second section of the paper a number of pragmatic concerns of organizations are addressed, including methods for improving productivity, increasing job satisfaction and on-the-job growth, and effectively managing the organization's mission.

When the social histories of the twentieth century are written, the explosive proliferation of organizations and organizational forms seems certain to be a major chapter. One noted sociologist calls twentieth century America "a society of organizations" (Perrow, 1986), while Peter Drucker flatly asserts that "Our children will have to learn organizations in the same way our fathers had to learn farming." Like that other

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explosive phenomenon of the twentieth century, the growth of technology, organizations have been the subject of both intense study and a good deal of cautionary consideration. An uneasy feeling surfaces periodically in both academic and popular discourse that, like technology, our organizations have grown well beyond our capacities to understand and control them. There is a good deal to be said for that point of view.

To say that our understanding falls short is certainly not to imply that we know nothing at all. Literally tens of thousands of scholarly and practical works have addressed issues of understanding organizations; merely listing the landmark works would overload any reasonable bibliography. (See Drucker, 1974; Mintzberg, 1979; and Scott, 1981 for examples.) Nor should we take this shortfall as implying failure of some sort. After all, the serious study of organizations only began in the late 1940s; prior to World War II, only a handful of scattered seminal works (e.g., Taylor, 1947; Weber, 1947) addressed the topic of organizations *per se*. Considering the fact that since the 1940s the scope and complexity of the phenomenon has, if anything, grown more rapidly than have our efforts to grasp it, one is inclined to see organizational theorists and practitioners as having accomplished a great deal in a short time.

Nonetheless, there are substantial gaps which need filling, basic and important questions about organizations which have been at most partially answered. Some instances are: On what important dimensions do organizations differ from other forms of social arrangement—and from each other? What relations exist between organizations and the behavior of persons who are its members? What constitutes ethical behavior in an organizational context, and how does this relate to ethics in the broader societal arena? What is an organization's "culture", and how does the use of this term for organizations relate to other, more familiar, usages? What can we do to positively effect the direction and functioning of an existing organization? to facilitate the establishment of a new one? What exactly are we committing ourselves to in calling something an "organization", anyway? The list of questions could extend considerably, but let these suffice to indicate the type and scope of issues about which we need insight, but about which our current understanding falls at least somewhat short of the mark.

This paper intends to take a fresh look at foundational questions such as these. A fresh look is just that: a thorough-going examination of the topic from the ground up, with no commitment to continuity with previous analyses of the same topic. The impetus for taking a fresh look comes from doubting the utility of building on existing foundations. In this paper I do not intend to review or criticize the existing literature;

that ground has been well covered by others. (See, for two excellent examples, Scott, 1981 and Perrow, 1986.) Suffice it to say that reviews of the literature point to the diversity of theoretical viewpoints and underpinnings in the field, and make no claim that a consensus view has emerged; thus there is no canonical body of theory which one need either accept nor effectively challenge. What commonality does exist among most current views is contained in the observation that an organization is a "system" rather than, say, a hierarchy or bureaucracy—but even on this tenet there is considerable diversity of viewpoint. That an organization must be viewed as some sort of system seems unarguable; exactly what sort of system it is and what difference this question makes in actual practice are open to examination. The "systems" view of organizations will be both critically and substantively examined later in this paper.

But the most compelling reason for a fresh look is to avoid conceptual fragmentation. The domain of facts for which one must account when considering organizations is uncommonly large and diverse. One must provide an account of facts ranging from the particular activities and goals of individual persons to the concerns and values of the society at large—and much in between. While current theories of organizations do well with one set of facts or another, none even attempts to do justice both conceptually and pragmatically to the entire domain. This paper explicitly does intend to do justice to the entire domain of facts about organizations, by drawing on the resources of one of the most extensive and deep conceptual systems yet devised for the doing of behavioral and social science: Descriptive Psychology.

This paper has two primary objectives: (a) to examine organizations conceptually, utilizing the concepts, methods and perspective of Descriptive Psychology and (b) to present certain methods and procedures of organization description which lead to effective interventions. These two objectives will be addressed in two separate parts of the paper. Along the way, a number of connections will be made between the present paper, on the one hand, and the literature of both Descriptive Psychology and organizational theory, on the other.

## **PART I: THE CONCEPT OF THE ORGANIZATION**

What exactly is an organization? Consider the following definition from a widely-used textbook (which the author himself admits is a "static", old-fashioned view but which he nonetheless uses for many chapters to good effect):

An organization is the planned coordination of the activities of a number of people for the achievement of some common, explicit purpose or goal, through division of labor and function, and through a hierarchy of authority and responsibility. (Schein, 1980, p. 15.)

This is a good starting place. It reminds us of a number of central facts about any organization, and points to certain characteristic features. What it does not do is give us a sense of perspective. Common sense tells us that an organization is not just the sum of its important features; an organization is a thing, in and of itself, and we might appropriately be inclined to ask, what kind of thing is it?

The modern, or at least current, answer to that question is, "It's a system, of course" (see Scott, 1961; Schein, 1980, p. 228). This answer is rooted in one of the more powerful intellectual trends of the twentieth century: the tendency to conceive of all complex phenomena as instances of general systems theory (von Bertalanffy, 1956; Boulding, 1953). While earlier theorists pointed to some systematic (e.g. Parsons, 1951) and environmental (Homans, 1950) aspects of organizations, the work of systems theory pioneers such as von Bertalanffy and Boulding made the systems view pervasive and self-evident. Over time the terms and referential metaphors have evolved from "open systems" (Scott, 1981) to "social systems" (Katz and Kahn, 1966; Likert, 1967) to "systems of flows" (Mintzberg, 1979) to biological systems (McKelvey, 1982). But all these have in common the general systems view that the fundamental conceptual anchoring point for understanding an organization is to see it as an entity/organism interacting with its environment(s) and modifying itself on the basis of feedback. All that remains for discussion is the fleshing out of the details.

The systems view is tempting. Its appeal is straightforward: After all, what is more characteristic of organizations than systems of all sorts? But the systems view says more than that. The claim is that "system" provides the fundamental context for understanding organizations; further (and this is where the real trouble starts) we are advised to study organizations *as* systems, taking as fundamental the conceptual units of systems theory—boundaries, environment, feedback and the like. (Students of Ossorio will recognize this as a particularly adept instance of "bait and switch"; Ossorio, 1985.) Soon we are talking about "interacting subsystems with flexible boundaries" and we would not know we were talking about an organization unless someone told us.

What's wrong with that? Isn't that a common move in science—creating an abstracted representation of the object of study, so that underlying structure and regularities are more easily seen? It is a common move, but a dangerous one; as Ossorio (1966, 1971/1978)

persuasively points out in a similar context, once we have made it there is no turning back. The statements and formulations we make about organizations per se are constrained by our knowledge and experience of actual organizations; we thereby are substantially protected against making things up that have little basis in reality. Regarding "systems" we have no such protection. Once we have formulated some type of system, the primary constraint on our statements and elaborations is the internal logic of that type of system itself—which may or may not have much to do with how organizations actually work.

The problem here seems a classic case of putting the cart before the horse: We are creating a theory about a domain before we have conceptually delineated and elaborated the domain itself. I propose to put aside for now any consideration of organizations as systems, on the grounds that such views are not a good choice for fundamental context. Later in this paper the "systems" view of organizations will be reintroduced in what I believe is a substantially more appropriate and sophisticated role.

### An Alternative Formulation

What, then, *is* an organization? Let us begin with one of Descriptive Psychology's favorite moves—belaboring and elaborating the obvious—and see how far it takes us.

An organization is straightforwardly a human community. It differs from other sorts of communities in certain characteristic respects, which we shall delineate soon, but to start with let us examine exactly what we have said by calling it a community.

#### *Organization As Community*

As it happens, we have actually said a great deal. Drawing on the delineation of the concept of "community" found in the Descriptive Psychology literature (Putman, 1981; Ossorio, 1981/1983) we see that, having identified an organization as a community, we have said that it is fundamentally characterized by the values of the following parameters: members, practices, statuses, concepts, locutions, choice principles, world.<sup>1</sup> Briefly, these are:

*Members.* Every organization is composed of some number of persons who are its members. Determining membership in organizations is rarely problematic; as the saying goes, "You are either on the bus or off the bus". In the paradigm case, members of organizations know themselves to be members and are recognized by their fellow members as such, that is, as "one of us". Membership is both enabling and constraining, in that

it both provides opportunities and implies certain commitments which are part of membership.

*Practices.* As Ossorio once put it, an organization's social practices are "a repertoire of behavior patterns which constitute what there is for its members to do" (Ossorio, 1981/1983, p. 31.). These patterns of behavior not only incorporate how things are done, they incorporate the significance of what is being done as well. For instance, in one organization with which I am familiar, to be told to "stop by my office after work" by your boss is to be invited to join in the informal planning and relationship-building activities of the firm—a mark of real acceptance. In another firm, when your boss tells you to "stop by my office after work", you are either about to be transferred or fired. The "same" behavior, but it initiates entirely different social practices, and therefore the significance of the two behaviors is entirely different. An organization is meaningfully characterized by its social practices (for simplicity, "practices").

*Statuses.* To have a status is to have a particular place in the social practices of an organization. Some statuses are important enough to be identified by specific locutions (president, personnel clerk, field sales representative, shift supervisor, lathe operator, etc.); typically there are specific practices relating to how one treats, and acts as, someone filling such places. Other statuses are less central or more ephemeral, and so are not singled out by common locution (e.g., the person who holds the "open" button in the self-service elevator while others exit.) Among the important practices of any organization are those relating to the filling of a status by a specific individual ("accreditation"), and the removal of an individual from a given status ("degradation"). A status need not be the sort of thing that a person could fill; for example, the place of "word processing machine" in my organization is currently filled by an IBM PC/AT. The status will certainly endure; the individual filling the status may not.

*Concepts.* To engage successfully in the practices of any organization requires the ability to draw the necessary distinctions. Concepts form the basis for these distinctions.

*Locutions.* Nothing is so clearly distinctive of an organization as its locutions. Listen to the on-the-job discussions of a group of Bechtel equipment operators, and then eavesdrop on the annual conference of the Aristotelian Society. One is tempted to say that they are speaking different languages; the differences are almost sufficiently profound to



warrant the conclusion. What is certainly warranted is the observation that the practices of the organizations are very different, the concepts required to make the needed distinctions are quite different, and therefore the locutions used in these organizations are different. Sometimes, of course, only the locutions vary: What banks call a workshop, school systems call an in-service. A small difference, to be sure, but a difference nonetheless, which effectively serves to characterize and distinguish the organizations.

*Choice Principles.* Life in any community is, moment to moment, a matter of options and choice. It is true that our behavior choices are bounded by what there is to do—the social practices—and what we are both expected and eligible to do—our statuses. But at any given time these boundaries define an arena within which we typically have substantial choice regarding what to do, and how and when to do it. Such choices are not made at random; indeed, the degree to which such optional choices reflect coherent patterns can be taken as a good indication of the strength and coherence of the community's culture. Choice principles refer to this coherence. They codify in some readily available manner the shared bases for choosing among alternative actions. Some of the ways in which choice principles can be expressed include policy statements (e.g., "Always put customer satisfaction first"; "All company services will yield at least a 20% margin"); slogans (e.g., "The customer is always right"; "Quality is job #1"); values (e.g., "Duty, honor, country"; "Veritas"); and "culture heroes" (e.g., Joe Hill for the IWW; Tom Watson, Sr. for IBM). For a more extended discussion of choice principles and their representation, see Ossorio (1981/1983).

*World.* Descriptive Psychology makes an important distinction between two related concepts: "reality" and the "real world". Reality in this conception is content-free; it consists of a set of boundary conditions which constrain what we are in fact able to do and say. The real world has as its content all the objects, processes, events and states of affairs within which and with which our behavior takes place. Reality is one; real worlds are many, and are constrained only by reality. A real world (for simplicity, "world") corresponds to a community rather than to, for example, an individual person. (See Putman, 1981; and Ossorio, 1969/1978; 1981/1983; for extended development of these points.) What distinguishes one world from another is the community's choice of ultimate objects, processes, etc. "Ultimate" in this case does not imply some sort of universal or revealed truth, but rather a very pragmatic approach, namely: to say that an object, for example, is "ultimate" for a given community is to say that it has no object constituents which

themselves have a place in the practices of the community. Consider, for example, the worlds of chess and physics. To say that a pawn is an ultimate object of the world of chess is not to pretend that any actual pawn cannot be analyzed into molecules and atoms; rather, it is straightforwardly to observe that atoms and molecules as such have no place in the practices of chess. (Molecule to QB-4? Guard your quark?) As we shall see later in this paper, the choice of ultimates (and therefore of worlds) in viewing organizations makes a critical difference.

### *Organization vs. Community*

All of the preceding applies to communities of all sorts. Let us now use this analysis to consider what distinguishes an organization from other sorts of communities.

Again, let us start with the obvious. An organization is a community that exists for the accomplishment of a specific, desired thing—the "common, explicit purpose or goal" referred to in Schein's definition. That thing may be the manufacture and distribution of industrial tools, improving the mental health and social welfare of the population of the Volusia county catchment area, the moral and spiritual upliftment of the Ann Arbor First Presbyterian congregation, the advancement of the viewpoint and knowledge of transformational linguistics, fellowship with like-minded entrepreneurs, or, indeed, any imaginable desirable state of affairs.

This overriding purpose—what the French call the "*raison d'être*"—distinguishes an organization from other communities. A family, for example, exists purely for its own sake; its entire reason for being is simply to sustain itself as a social unit, and thereby make available to its members the rewards and satisfactions of family life. This is not to deny that participation in a family enables us to accomplish "specific, desired things"; obviously, it does. But these desirable things are simply aspects of family life, not the overriding purpose for which we became a family. Indeed, one common way in which family life goes wrong is when one of the family members treats the family like an organization—an efficient means of ensuring comfort and hot meals, or frequent sex, or social prestige, or whatever.

For the purposes of this paper we shall adopt the commonly-used term "mission" to refer to that overriding purpose for the accomplishment of which an organization comes into being and sustains itself.

It is difficult to overstate the importance of mission in organizations. The mission serves as the primary anchor for the choice principles of an organization. As a purely pragmatic matter, the members of an organization must consistently choose those behaviors that most further

the accomplishment of the organization's mission; otherwise there is little of the "planned coordination of the activities of a number of people" which Schein (see above) correctly identified as definitive of organizations. (Perhaps "purposive" or "intentional" might be better than "planned" here, an admittedly small point.) As we shall see, there are a number of fundamental practices of any organization which underlie its successful functioning and which have to do with mission.

But concern with mission is not only a matter of pragmatics. I submit that an organization's mission is the foundation of its ethics. Among the choice principles of any community are those which guide members in deciding what is the ethically right thing to do. Members of an organization typically face a dilemma: While the choice principles of their society or religion give guidance regarding some ethical matters, these principles often are little help in deciding day-to-day issues in organizations. Of course, you don't lie, cheat or steal; but how about using company time to further your own education? Do you put your people to work on your own pet project, or on cooperating with another department? Which lines of research shall our company pursue? In each of these, the answer is easy if one only considers self-interest, but it is precisely such purely self-interested choice that is illegitimate in an organization. As an organization member who is attempting to act ethically, the fundamental reference point for ethical choice is: "Does this make the greatest contribution to accomplishing our mission?" In extreme cases, the ethical choice from the organization's viewpoint may violate the ethics of society at large, but we should not take this as in some way diminishing the ethical force of concern for mission; this is a familiar kind of dilemma, much like the conflict between concern for family and concern for country in times of war, and should serve to remind us that even the highest ethical principles lead us to the need, finally, to choose.

Taking "mission" to be the distinguishing aspect of organizations, we can quickly move to some further, related aspects which distinguish organizations per se.

*Practices.* From among the social practices of any organization, two sets stand out as especially important (Putman, 1980). The first have been termed the "fundamental" practices. These are the practices which are necessary for there to be any organization at all. The fundamental practices include accreditation—the assignment of individuals to statuses; degradation—the removal of an individual from a given status; negotiation—the resolution of differences; adjudication—the third-party resolution of disputes; and management. (Many theorists, e.g., Drucker, 1974, subsume the first four fundamental practices under management.

I choose to list them separately because the first four are fundamental to any community while management, as is asserted below, is uniquely distinctive of organizations.) The concept and practices of management will be discussed further below.

The second important set are the "core" practices. These are the heart and soul of the organization, if you will: the practices which are uniquely definitive of this specific organization. Core practices are intrinsic practices, that is, they are engaged in by members with no further end in mind and no need for further explanation as to why they are being done. But core practices are more than just intrinsic; they are mandatory, in the sense that every organization member is expected to participate without significant reserve in the core practices. (Professors may or may not attend faculty meetings. They may serve as advisors to student organizations, write grant proposals, organize symposia—or not. But they *must* contribute to the advancement of knowledge, through research and scholarship, and its dissemination, through teaching and writing, or else they are failing to participate in the core practices of the university.)

Obviously, there is a close relation between an organization's mission and its core practices. Let us state it explicitly: The core practices of an organization are those which comprise the accomplishment of its mission. (Note carefully that this is not the same as "contributing to" the mission—a fundamental point for managers.) Mission is embodied in core practices; to put it less cryptically, mission is an outcome brought about by successful participation in the core practices of the organization. This basic conceptual point has significant practical implications for building, managing and revitalizing organizations, as we shall see below.

*Statuses.* The existence of mission as the central legitimizing choice principle in organizations creates logically and pragmatically the need for a special organizational status: what in more florid times might have been called "the keeper of the mission". This special status takes as its legitimate and primary concern ensuring that the mission is accomplished, and that the resources of the organization are appropriately utilized in that effort. Many terms exist for this status (administrator, executive, director, superintendent, president, boss, etc.) but following the overwhelming modern consensus we shall adopt for this status the term "manager". The practices in which a manager engages as manager will be termed "management practices", or "management" for short.

A small reminder seems in order here. "Manager" refers fundamentally to a status—a place in the practices of an organization—not to a person.

The individuals assigned the status of manager do not somehow disappear into it, although this is the impression one would get from reading most management literature. In understanding the tasks and behavior of managers, we must not forget that we are dealing with actual persons, with their entire array of person characteristics (see Ossorio, 1970/1981), who are filling a particular place in the specific practices of an actual organization. Further, it is useful to remember that "manager" may be (in fact, usually is) only one of many statuses filled in this organization by this same individual. This multiplicity of statuses, with their potentially competing claims on the individual, is one of the inevitable, irreducible tensions one encounters in organizational life. To speak of "management practices" is one thing; to expect purely "management" behavior from any actual individual is quite another, and certainly misguided.

With the above warning in mind, let us consider a few fundamental practices of management which relate to mission. The organization's mission must be created, clarified, communicated to the members of the organization, and committed to by them. Members must be encouraged and assisted in creating plans and goals which lead to positive action in pursuit of the mission. Jobs, roles and activities within the organization must be defined and refined subject to critique of their contribution to mission. Everyone must be held accountable in some manner for his or her utilization of organizational resources: Was this a good and responsible use of resources in the light of pursuit of mission? Finally, the mission must be renewed, revised and revitalized in the organization lest it become merely a slogan that has little impact on day-to-day functioning. All of these are fundamental practices, in that they are necessary for there to be any organization at all, and they are clearly the responsibility of managers.<sup>2</sup>

This is a somewhat daunting list. If it serves to remind us that the status of manager is no easy one to fill successfully, it can also serve to point up the vital role authority plays in management. Among the hottest topics for organizational theorists in the 1980s has been power: its accumulation, use, distribution, etc. One can easily get the impression from current literature that "authority" is an outmoded concept; in fact, I believe we have simply lost track of certain basic and classic distinctions. "Power" refers simply to the ability to get things done, in particular to the ability to get others to participate in getting your thing done; "authority" refers to power which accrues to an individual by virtue of the position the individual occupies—in a word, by virtue of his or her status. The key point here is that authority legitimately belongs to a status; the individual exercising that authority does so legitimately only so long as he or she occupies that status and is functioning *as* someone

in that status. (Merely occupying the status of parent, to give a pointed example, is no guarantee that one will act *as* a parent, as child abuse statistics attest.) Using management authority while acting as someone other than a manager (in self-interest, say, or to promote the viewpoint of one's profession within the organization) is an illegitimate use of authority, albeit a common one. Organizations cannot function without the appropriate use of authority any more than automobiles can function without the appropriate use of steering wheels—but authority, like any power, can be abused.

One final status distinction should be drawn here: line vs. staff. This distinction, rooted in military organization, is important but widely misconstrued. Not all activities in an organization are part of a core practice; many activities contribute to, but are not directly part of, the accomplishment of mission, and some have no discernible connection to mission at all. Practices and activities which are directly part of mission accomplishment are "line"; all others are "staff", and the individuals carrying out these activities are known as line and staff, respectively.

Line by its very definition is at the core of any organization. Staff, by contrast, is less central; in a very real sense, staff exists solely to enable the line to do its job. Note, however, that there is no implication that line is somehow more important than staff. Fundraising, for example, a staff activity in any arts group, is arguably the single most important function in the organization—try running an opera company without it. Nonetheless, there are real differences between line and staff which must be appreciated and managed if each is to thrive.

*Members.* The central membership issues for organizations stem, not surprisingly, from consideration of mission and management. As previously noted, membership in most communities is relatively non-problematic: You either are a member or you are not, and rarely do such questions as "Is he really one of us?" arise. One is born into many communities (family, nation, church) or else goes through a type of "re-birth" to join (adoption, naturalization, baptism); in others, one becomes a member by virtue of recognizing in oneself and being recognized by others as having the salient characteristics of a member. (Traditionally, when one received a Ph.D., part of the graduation ceremony was a welcome into the "community of scholars"—under the traditionally reasonable assumption that anyone receiving this degree had demonstrated the salient characteristics of a scholar.) In either case, the rule is: Once a member, always a member. One can leave or be thrown out, but either takes some doing and is the exception rather than the rule.

Membership in organizations, on the other hand, is a somewhat different matter. An organization member must make a substantial commitment to the organization's mission; otherwise, no matter how hard he may work or "involved" he may seem, the "member" is only using this setting to advance his own personal objectives. In a community there is nothing wrong with that; within usually very broad limits of appropriateness, that is what communities are for. But organizations fundamentally do not exist merely to provide a context for individuals to advance their personal objectives; they exist to accomplish a mission, and the mission takes precedence.

This fundamental connection between membership and mission has several important implications for the relations between member and management. (a) In practice, commitment to the mission implies commitment to the authority of management. One commits oneself to subordinate one's own judgement and goals to those of the organization's management so long as one is acting as an organizational member—hence the commonly used term "subordinate" to refer to individuals in many hierarchical organizations. (It may be useful to note explicitly that a person is subordinate to management authority, not to the individual embodying that authority at any given time.) (b) Management must concern itself with obtaining and maintaining that commitment from members through the mission-related practices mentioned above. (c) In particular, managers must strive to maintain a clear awareness on the part of members of the connection between the member's activities and accomplishment of the mission. (d) Both managers and other members have a stake in the organization's mission, but those stakes are somewhat different.

Let us examine some of these implications further. A man from Mars (or some close analogue, such as a teenager) might well ask: Why would anybody choose to join an organization and subordinate themselves to someone else? There are two possible answers, of course: Either you believe the mission is important and you want to be involved in accomplishing it, or else you see organizational membership as a means of advancing your own personal objectives—or some combination of the two. The "purely personal" type member poses a fairly straightforward challenge to management: Give him enough opportunity to get what he wants, while making it necessary to contribute to mission to get it. When the return is not seen as worth the effort, or when he sees a better place to fry his fish, the "purely personal" type member will leave—a clean, basically self-interested transaction with no messy ethical residue so long as, while a member, he kept his commitments.

The "believer" member is not quite so simple. A more-or-less explicit contract exists between such members and management: One agrees to

submit to management authority in exchange for management's commitment to see to accomplishment of the mission. Management's actions are at least ethically, and to some degree practically, constrained by this contract. A "believer" (it goes almost without saying that actual individuals rarely are either completely self-interested or believer types, but rather have both motives to some degree) will expect to perform tasks which contribute to mission, and will expect to see the connection between tasks and mission clearly; it is management's job to ensure both the reality and the perception. But the constraint is both deeper and more subtle than that. "Believers" by the very nature of organizations have an ethical standing to call management to account for their actions (in actual organizations, of course, this may be risky or impossible—but that in itself is diagnostic of predictable problems with the organization's motivation of its members.) Authority has to do with action, not with critique. (In terms familiar to Descriptive Psychologists, authority is an aspect of the relationship between two Actors and has no legitimate place in the relationship between Critics, since the latter explicitly assumes appeal to shared standards which both parties are competent to apply.) Thus, management theorists commonly observe that excellent managers encourage outspoken discussion and even disagreement during planning and debriefing, while demanding whole-hearted teamwork and commitment once the action decision is made.

Since in actual organizations both members and managers are actual individuals rather than archetypes, the relation between "believers" and managers lead to some of those "irreducible tensions of organizational life" mentioned above. "Believers" can be difficult to manage, particularly in volunteer organizations where the personal interests of career and livelihood are not at stake. Care must be taken to provide context and ample opportunity for members to question management and its actions, but care must also be taken to distinguish such times from the day-to-day activities of the organization in which subordination and commitment are required.

The primary tension for managers lies in the normal human tendency to identify with one's status. It is a very short step indeed from "I am a manager" to "Le Management, c'est moi". That short step occurs when a manager fails to distinguish those occasions when she is functioning *as* a manager from those occasions when the status she is acting *as* is something else—member, say, or financial analyst, or technician. Failing such distinction, a manager sees everything she does as the actions of management, and increasingly will fail to distinguish between advancing the organization's mission and achieving her own goals. Indeed, in the final stage of this breakdown (which, in reality, is where many managers start) the manager sees her personal goals and the organization's mission



as inherently one and the same. There are both ethical and pragmatic problems with this sort of preemption. Ethically, it is simply illegitimate; the manager is using authority that was meant for accomplishing mission to pursue ends that have nothing inherently to do with that mission. Pragmatically, this stance leads to chronic conflict with "believers", who have a personal investment in the mission and will see its preemption as both a threat to something they value and a violation of their basic contract with management. They will struggle, resist and eventually, if all else fails, leave—leaving the field to those for whom self-interest is the primary motive. To say that this robs the organization of its vital core is to understate the reality.

What are managers to do, then? Let us again acknowledge explicitly that many individuals who manage organizations do so purely for the self-interested rewards: they want the power, prestige, money or else they just like to run things, and that's that. Such individuals would view the notion of being constrained by mission or the membership or ethics as unacceptable, hopelessly naive, or fuzzy-headed: "That's not how the real world works". In an era in which corporations are being publicly looted by financial pirates who are hailed in the press as folk-heroes, there is something to be said for that point of view. Fortunately, it appears that the thieves and psychopaths in management are more visible than numerous; I believe that the vast majority of managers want to do what is best for the organization. Managers must begin by recognizing that they have been entrusted with the mission; it is not theirs to do with and change as they see fit. In particular, managers must take care to involve members—especially "believers"—in periodic review, affirmation and, as needed, change of the mission. Any change of the mission must be done with the involvement and consent of the members, or else management should count on a great deal of turmoil and turnover in the membership—with some of the most committed people leaving. In the second part of this paper we will examine some specific methods for affirming and revising mission.

*World.* If the social practices represent a repertoire of what there is to do in an organization, its world represents a repertoire of what there is to do with, to and within. Everything one encounters in an organization—the people, the products, services, tools, furniture, procedures, deadlines, rituals, celebrations, structures, legends, policies, *everything*—is part of the organization's world.

How can we characterize an organization's world? A simple catalogue of constituents is one approach, but it is not a very informative one. Any world has a kind of coherence that is not captured by a list of components. Things fit together systematically; the existence of one

object logically demands the existence of certain other objects and certain processes, which stand in certain relations one to the other. (The existence of a lathe *as part* of an organization implies the existence of metal to be worked, lathe operators and their procedures, and metal fabrication as in some way connected to the accomplishment or support of the mission.) The various "systems" views of organizations, as previously mentioned, are responsive to this basic coherence; while one must be careful to avoid reductionist traps, it seems appropriate to characterize an organization's world as a system.

But what kind of system? Here we must proceed with caution. It is clear that more than one type of system is involved; the terms and logic that make sense of lathes/lathe operators/metal fabrication do very little for making sense of employees/supervisors/attitudes/motivation—and vice versa. It has become common to speak of several different systems (e.g., the technological system, the administrative system, the human system) as "interfacing" parts which together comprise the whole. But there are chronic problems created by this "system of subsystems" view. The most glaring one is that of assigning various objects to the subsystems—they won't stay put. Jim Wozniak obviously is part of the human system. But he is part of the technological system as a lathe operator, and part of the administrative system as a union officer. Which subsystem does he rightly belong in? Further, it is clear that a change in the technological system—the computer is down—has an impact on the human system—customer service representatives are increasingly frustrated and demotivated. But how exactly does a change in one subsystem bring about a change in another—what exactly are the "interface mechanisms?" Note how easy it would be to take that last question seriously and begin investigating interface mechanisms. We are in the position of the old woman who swallowed a fly, then a spider to catch the fly, then a bird to catch the spider which she swallowed to catch the fly, then . . . until she swallowed a horse and died. Taking the lesson of the old woman to heart, I propose that we not swallow the fly.

Instead, consider this alternative formulation. Each organization is in reality a unified whole, within which exist many different worlds. These separate worlds are not related to one another the way pieces of a jigsaw puzzle are related; they are related in the same way different engineering drawings of the same camshaft are related, or different eyewitness accounts of the same event are related. That is, the worlds of an organization represent the whole organization as seen from different perspectives. As previously noted, different worlds stem primarily from different choices of ultimate object, process and so forth; what these (sometimes strikingly) different views have in common is that they are views of the same organization.

This formulation has some immediate implications. To begin with, it makes explicit both the remarkable diversity of different systematic views of organizations—we are literally talking about different worlds—as well as their inextricable interconnectedness, since each is a view of the same organization. Further, it helps us to make sense of the commonly-observed fact that a change in the organization which seems positive from one perspective may be invisible from another and seem quite negative from yet a third (this point will be elaborated below). In each case, what is changed is the organization—but how the change appears is different depending on which world we are looking at.

This leads to an important point: We have no access to the organization other than through some view of it, that is, via one of its worlds. Just as there is no engineering projection which is *really* the camshaft by contrast to the others which are merely views of it; just as there is no eyewitness who can claim to tell us what *really* happened, by contrast to the others who are only giving their version; just so, there is no world, no systematic view of an organization which can be taken to be the *real* organization by contrast to the others which are merely alternate ways of looking at it. This is an important point because, as we shall see, the organization as seen from certain statuses appears to be *really* one of its worlds—but which world appears to be the real one depends on which status one is occupying. A strong implication of this insight: Managers and theorists will be well advised to master each of the worlds elaborated below if they hope to grasp what they have in common—the organization itself.

Every organization is comprised of at least three important and distinct worlds: the world of people, the world of machines and the world of numbers, to name them by their ultimate objects. Each of these worlds has its own "logic"; it makes sense in the ways that its ultimate objects, processes, etc. make sense. Each represents a view of the entire organization; in effect, in shifting from one to the other we put on a set of lenses through which we see the entire organization with the logic of that world.

Table 1 summarizes some of the basic constituents of these three worlds. Let us look at each in more detail.

*The World of People.* When we look at the organization with the logic of people, we see persons acting and interacting. The ultimate "object" in this world is the person per se; the ultimate process is the behavioral process of action.

Saying that persons are the ultimate object in this world is not to imply that somehow we have eliminated machines or turned them into people (no need to issue Social Security cards to the desks). Machines

Table 1  
Three Worlds of Organizations

Logic of:	MACHINES	PEOPLE	NUMBERS
BASIC:			
Object	machine	person	number
Process	operation	action	accounting
Outcome	production	achievement	bottom line
Relationship	causal	contributory	arithmetic
Strong suit	precision	significance	control

are part of this world, but their fundamental place here is within the activities of people—they are tools, mechanical means of extending the capabilities of people. Likewise, processes other than action and interaction are seen, but always in the light of their connection to the activities of people—a technical process for cracking petroleum, for example, might be seen as a complex step in the social practices of petroleum engineers. Everything is seen, and it is seen in the light of its connection to people and their activities.

To say that people and action are the ultimates here is explicitly to say that describing this world and managing it require the conceptual resources of behavioral science, especially Descriptive Psychology. Looking at the organization with the logic of people, we see persons and their characteristics: skills, knowledge, values, motivations, attitudes, interests, beliefs, etc., all of which are seen as directly relevant to the functioning of the organization. We see action and interaction, with its related concepts: status, communication, goals, leadership, information, eligibility, relationship, tools, teams, competition, cooperation, meetings, etc. Managing from the logic of people is essentially a matter of leadership; first attention is given to maintaining the commitment, connection and capabilities of people.

Two other "ultimates" of this world should be mentioned, since they are important conceptual anchors in Part II of this paper. The ultimate event, or outcome, in the world of people is achievement—the result of action. The ultimate relationship (of person to person, action to action, person to action, etc.) is contributory, that is, the one makes a contribution to the other. As we shall see, this contrasts in pragmatically important ways with the ultimate relationships of the other two worlds.

*The World of Machines.* Looking at the organization through these lenses, we see machines and mechanical systems operating to produce an end product. We see raw materials or parts as input into the initial stages of the process; some operation is performed on them and they are output, moved along to the next stage as input, where another operation is performed, etc., until the final product of the system is produced. The ultimate object is the machine; the ultimate process is operation resulting in the ultimate outcome, production.

People in this world are seen in the light of their relationships to machines—as operators, maintenance workers, etc.—or as a kind of (more or less unreliable) machine themselves. Their actions are treated as any other operation in the system, studied and programmed for maximum efficiency. People are fundamentally units of production in this world.

This is the world of the technician and the engineer. Relevant concepts include input, output, operation, logistics, production, feedback, methods, technology, procedure, measures, efficiency, maintenance, etc. Great value is placed on accuracy, information and precision. The ultimate relationship here is causal: Information about the input and the desired output determines absolutely the operation to be performed; a given input and a given operation will always produce a specifiable output (if not, an error has occurred). A manager viewing the world of machines functions fundamentally as a head technician or, as Fukuda put it, a "managerial engineer" (Fukuda, 1983). The fundamental task is getting the system of production working right, and keeping it that way.

*The World of Numbers.* Both the world of people and the world of machines have a certain intuitive appeal; after all, both people and machines are familiar objects in our everyday experience, and it is easy to see how one could take them as "ultimate". Numbers are a little different in that regard. Most of us are not accustomed to dealing with numbers as real-life objects, let alone as ultimates, but that is precisely what we encounter in the organizational world of numbers. It may be difficult at first to see an organization through these lenses—unless you are accustomed to it, in which case it may be difficult to see the organization in any other way. (This is not merely a flip comment; a quick look at the curricula of most prestigious business schools would persuade one that the world of numbers and the world of management are one and the same.)

What does one see when one looks at the organization through the lenses of numbers logic? Fundamentally, one sees numbers—quantities, ratios, measures, classifications, etc. This is not to imply that chairs are

somehow magically transformed into integers, but rather to say that the fundamental facts about the chairs are all numeric: How many do we have? How much did they cost? Depreciated at what rate? Expensed or capitalized on the books? How many of what kind go in the office of a GS-14? The production line does not disappear, it is seen as a flow of quantities: 1000 cases of raw materials input at \$125 cost per case, processed at a rate of 150 per hour with 2% error, requiring two initial machines and one finishing machine, producing forty units output per hour at a cost of per unit of \$376, which can be sold within ten days at a 20% margin. People are quantities: job classification, so much skill, a certain level of experience, salary, production quota, a specific place in the hierarchy, a designated amount of authority. The ultimate process in the world of numbers is counting (measuring, if you prefer); in this world, quite literally, if you can't measure it, it doesn't exist.

This is the world of the accountant and administrator. Relevant concepts include accounting, classification, allocation, reporting, investment, margin, ratios, hierarchy, delegation, resources, policy. Most managers with business-school backgrounds have been trained to see the organization primarily with this logic (managers with primarily machine-logic background often call them "bean-counters".) Its ultimate relationship is summative; things either add to or subtract from the ultimate outcome, which is known by one of the more familiar and overworked phrases in the modern vocabulary—the "bottom line". Managing from the logic of numbers is fundamentally a matter of making the numbers turn out right. (One prominent management theorist, Porter, 1985, goes so far as to assert that the single measure of management success is the production of "better-than-average" margins compared to competitors in the industry group.)

*When Worlds Collide . . .* By now certain facts about the world of organizations should be self-evident: (a) The organization looks very different depending on which world you are looking at. (b) What you can do well, or at all, within an organization depends largely on which of its worlds you are inhabiting. (c) Each world has its strong suits, enabling one to do certain things well. (d) Each world has its weak suits and blind spots. (e) The potential for collision between these different worlds is tremendous. (f) All the preceding notwithstanding, the organization itself is a single unified whole.

Perhaps the single most important implication of these facts is this: A manager or theorist who hopes to do justice to an organization must move competently within and between each of its worlds, as appropriate. The strong suit of people logic, for instance, is significance: seeing the important, the right thing to do. But do not try to design a gene-splicing

process using people logic; for that you need precision, the strong suit of the machine world. And, lest we waste time and other resources, we need numbers logic and its strong suit, control. Using the wrong logic to address an organizational concern is like using a hammer to open a paint can: while you may succeed, you are likely to create quite a mess in doing so.

### Summary

Let us summarize in broad strokes what has been presented in Part I. An organization is a human community, and therefore is characterized fundamentally by its members, practices, statuses, choice principles, concepts, locutions, and world. An organization exists for the accomplishment of its mission—a specific, valued state of affairs—and its core practices are directly related to mission. The mission provides both pragmatically and ethically an anchoring point for the choice principles of the organization. A special mission-related status, that of manager, exists to see to the effective and efficient pursuit of the mission; authority is invested in managers for the accomplishment of mission, and all other members agree to subordinate their independent agency to management authority. Members are either part of the line—directly involved in accomplishing the mission—or staff, involved in supporting the line. The world of the organization looks different depending on which systematic logic one uses: three important organizational worlds are those in which people, machines and numbers are the ultimate objects.

Building on these fundamental concepts, let us now turn to Part II of this paper, in which some methods for organizational intervention are derived and discussed.

## PART II: METHODS FOR ORGANIZATIONAL EFFECTIVENESS

### Productivity Assessment and Improvement

Productivity is an important indicator of the overall effectiveness of an organization. Over the last ten years or so, the topic of productivity has attracted a great deal of attention in management circles, owing partly to the wide-spread perception that we could do better with the resources we have if only we knew how. It is also a clear example of the difficulties one encounters when a problem is approached using the wrong organizational logic.

Productivity is a term borrowed from economics, where it is defined as units of product output per unit of labor input. That is, productivity

refers to how much labor we have to put in to get out our final product (or service, of course). Produce more with the same amount of labor, productivity goes up; produce less with the same labor input, productivity goes down. As such, it seems clear that productivity is a reasonable indicator of how well we are doing in using our resources for their intended purpose, the accomplishment of mission.

Obviously productivity is not a perfect indicator, since it includes only labor and neglects all other resources; a business can spend itself into bankruptcy automating in pursuit of productivity gains. With a little common sense and a few other ratios (return on capital, for example) a good numbers manager can get a lot of mileage from careful attention to productivity.

But what to do when the numbers indicate that productivity needs improving? The numbers can tell us that attention is needed; that is their purpose and strong suit. But they cannot tell us what to do about it. For that we have to turn to another logic, and here is where the problem typically begins because, as thoughtful readers have no doubt already observed, the standard definition of productivity is a numbers world fact derived from a machine world systematization. The systematic model to which productivity numbers direct our attention is the mechanistic input-operation-output model, but the primary input into the system—that all-important denominator in the equation—is labor, the productive activities of people. To the extent that our productivity improvement efforts focus exclusively on mechanical matters, we can safely rely on the input-operation-output model—but this is seldom the case. Far more typically we find that productivity improvement is a matter of somehow getting people to be more productive, and for that we need the far more complex logic of people and achievement to see what to do. To nail this point down with a slogan, consider this choice principle for managers: "Machines produce; people achieve".

Improving human productivity, then, boils down to increasing human achievement. How can this be done? Fortunately, Descriptive Psychology provides a straightforward and powerful answer to just that question via the parameters of Intentional Action (Ossorio, 1970/1981). To change a person's achievement we can change one or more of the following parameters: know, know how, want, performance, eligibility.<sup>3</sup> Since one available form of behavior description is the achievement description, which identifies the action by reference to its achievement (Ossorio, 1969/1981), it seems not inappropriate for our purposes to refer to these five as the "parameters of achievement". It is by reference to these parameters of achievement that managers will find their most powerful means of improving productivity. Let us examine them each in detail.



*Achievement.* To know how to improve, we must first know what to improve. Our anchoring point, of course, is the final product or service, but this barely gets us started. We must give thoughtful attention to the following questions in order to specify achievements for improvement: Who contributes directly to the end product/service? Who contributes indirectly, but nonetheless necessarily? Who contributes important but if need be dispensable support to the end product/service? What, specifically, must each of these individuals achieve (and to what standard) as their contribution? Which of these contributions results in some tangible product, and which results in achieving some desired but not product-bound state-of-affairs? (Thoughtful analysts, e.g., Shostack, 1984, have observed that few of the really important contributions to an end product/service take the form of an interim product. Many productivity-improvement efforts, however, *begin* by specifying "outputs", which are all products. Not surprisingly, many productivity-improvement efforts fail.) What would we take as evidence that each of these contributions had been achieved to acceptable standard? Finally, what specific achievements among these do we want to target for improvement? We shall refer to these as the "targeted achievements" hereinafter.

*Know.* This parameter is a very familiar one to managers; it forms part of the stock-in-trade of their training departments. In brief, every achievement requires the successful making of certain specific distinctions. This is referred to in Descriptive Psychology as the "Know" parameter of the action. In practical terms, we need to examine three categories of knowledge to spot opportunities for improvement: facts, concepts, and perspectives.

For each targeted achievement, we need to ask: What facts does the individual need in order to achieve this? How does s/he get these facts? How are these facts updated, and how successful/reliable is the updating? What concepts are required to achieve this? (Consider both technical concepts, e.g., "variable-rate mortgage", and organization-specific concepts, e.g., "loan approval team".) How are these concepts acquired, and what evidence do you have that the individuals have actually acquired them? Is their mastery of the concepts sufficient for this achievement? What is the usual perspective an individual brings to the targeted achievement, and what perspective(s) is required to achieve this? (For example, bank tellers may view taking a customer's deposit from a purely technical, processing perspective—make sure the right forms are filled out, copy A to the customer, B to operations, etc.—whereas we need tellers to take a human-interaction perspective—greet the customer, watch for non-verbal signs of

impatience, etc.—in order to increase cross-selling of bank services.) Any of these may reveal opportunities for improving the targeted achievement.

*Know How.* Knowledge must be joined with skill—"know how"—to bring about achievement. Relevant questions are: What technical skills are required for this achievement? What "cultural" skills—political or organizational savvy—are required? Do the individuals have these skills in sufficient degree? How do we know they have them?

*Want.* Knowledge and skill are human capabilities. As such, they are very roughly analogous to the capacities of a machine, and it would not be surprising to find a machine-world manager noticing their importance. Machines, however, have nothing even remotely analogous to the "want" parameter; only people want a particular state of affairs and act on that motivation. Accordingly, this source of achievement improvement is less often skillfully utilized in most organizations.

There are four categories of "wants" to consider regarding the targeted achievements: intrinsic, extrinsic, competing and counter.

"Intrinsic" and "extrinsic" are classic distinctions in the literature of behavioral science. Intrinsic refers to an action that is engaged in for its own sake, for the intrinsic satisfaction of doing it, with no further end in view; extrinsic refers to an action engaged in simply as a means to obtaining some other, intrinsically valued thing. It is difficult to overstate the importance of intrinsic motivation in the functioning and maintenance of organizations. (This topic will be elaborated further in this paper in the section entitled "Work, Satisfaction and Growth".) Intrinsic motivations are essentially self-propelling; all that is required to initiate action is a perceived opportunity to act on them. Achievement occurs routinely to the extent that undertaking the targeted achievement is an opportunity to satisfy intrinsic wants.

For each targeted achievement, ask: What does the individual find most satisfying about achieving this? What does s/he find most intrinsically satisfying about the task itself? the environment within which the task is accomplished? Does this task offer the individual good opportunities for achievement? problem-solving? teamwork? service? In sum, what (if any) intrinsic wants are actually satisfied by this achievement?

Extrinsic motivation is the classic "carrot and stick" model. The individual accomplishes the task as a means either of getting some desired reward or of avoiding some undesirable consequence. In either case, the impetus to action lasts only until the carrot is obtained or the stick avoided. (This should not be taken as campaigning against the use

of extrinsic motivation, but rather as merely pointing to one of its characteristic features. No organization can run purely on intrinsic motivation; I have yet to meet the person, for instance, who fills out time sheets or tax records for the sheer satisfaction of the task itself.) Consider these questions: What actual reward (if any) does the individual get for successful completion of the targeted achievement? What specific negative consequence does s/he avoid by the achievement? Are these rewards clearly and directly linked, in actual practice, to the targeted achievement? Or are they of the form, "Their reward is a paycheck and continued employment", which in almost all cases turns out to be little more than rhetoric?

"Competing wants" refers to the fact that, at any given time, an individual may have stronger reasons to do something else, instead of the targeted achievement. We may want assembly-line workers to pay careful attention to quality defects, but they may perceive stronger reasons to meet their production quotas and take chances with quality. For each targeted achievement, ask: What competing wants are there? How strong are they? How can we restructure the situation to change the relative strengths of these wants?

Finally consider "counter" motivations—resistance. Resistance refers to a motivation to *not* do what you are trying to get me to do; it is invariably the result of perceived coercion (Putman, 1985). Look at the targeted achievement for a moment strictly from the point of view of the individual undertaking it. In doing it the way we want it done, is s/he "giving in" in some way? To what, or whom, is s/he giving in? By doing it this way, is the individual acting as a kind or person or role s/he wants to avoid? (For instance, many department store clerks see themselves as primarily serving the customer's needs. To be required to try to sell "add-ons"—a second pair of glasses, a belt to match the pants—is often seen as "becoming a salesman", a lower-status role in their eyes.)

Taken together, careful consideration of motivations can often reveal avenues for improved achievement.

*Performance.* Performance improvement is the realm of the industrial or management engineer. This looks at the specific ways in which the task can be performed, and asks: Are there preferred ways of doing it? Is the preferred method known to the individual, and is it known to be preferred? What provision has been made for ensuring that the best methods are actually and consistently used? For ensuring that the best method is frequently reviewed, "recalibrated" and improved upon? What tools and technology are needed to accomplish the targeted achievement? Are they available to the individual when, where and as needed? Do the individuals have the needed skills in using these tools?

What job-aids are called for, and how are they provided? Fukuda (1983) brilliantly explicates this approach.

*Eligibility.* The final parameter of achievement is the most frequently overlooked. Eligibility refers to having the necessary permissions and endorsements—in one's own eyes as well as in the eyes of others—to act as needed to achieve. For instance, I may be strongly motivated to institute consensual decision-making in our organization. I may know everything I need to know to succeed; my skills may be first-rate, with well-practiced methods. But if I am a newly-hired supervisor whose superiors strongly believe in making decisions at the top and handing them down, I not be eligible in anyone's eyes to institute consensual decision-making—and so will fail if I try. Some seldom-asked but crucial questions are: Are the individuals eligible in their own eyes to achieve the targeted achievement? How do you know—what has been done explicitly to make them eligible? In what other eyes must they be eligible? Are they? And again, what has been done explicitly to make them eligible?

In summary, productivity improvement is an important and complex matter. The foundation of productivity is the achievements of the individual persons in the organization; accordingly, we must view productivity with the logic of people in order to see how to improve it.

### Work, Satisfaction and Growth

So far we have concerned ourselves almost exclusively with the organization itself—its mission, management, concerns and so on—as seen by an organizational theorist or a manager. Let us consider in this section a somewhat different view: the organization and its place in the lives of its members. In particular, we shall explore the topic of "job satisfaction", and some means of improving it.

In the twentieth century, Freud said it first and best: the two basic requirements for satisfaction in living are "Lieben und Arbeiten"—Love and Work. Considering the divorce and never-married statistics, Love seems in somewhat straitened circumstances these days; accordingly, individuals have a great deal riding on Work. And the plain fact is, for the large majority, work occurs within an organization.

It is not surprising, then, that for many people their work organization looms very large indeed. This fact has lead many theorists, from Maslow (1954) and McGregor (1960) onward, to explore the roots of job satisfaction. From their explorations have come a fairly commonly-accepted set of "needs" (such things as security, autonomy, recognition, achievement, power, self-actualization) the satisfaction of which, it is said, result in job satisfaction. (Conversely, the lack of satisfaction of

these needs is used to explain job dissatisfaction.) There is a certain commonsense appeal to this sort of thinking, but there are also some difficulties with it. I would like to suggest a somewhat different formulation that preserves the commonsense appeal while steering around the difficulties.

The primary problem with the need-satisfaction approach is its assumption that job satisfaction requires explanation by reference to some other sort of satisfaction. On the contrary, I would suggest that, as Freud implied, work is the sort of thing that ordinarily "produces" satisfaction on its own. To be more exact, consider this proposition: Satisfaction accompanies participation. Participation in a family ("Lieben") or participation in the practices of an organization ("Arbeiten"); in either case, it is accompanied by satisfaction unless something occurs to prevent it. In short, it is the *lack* of job satisfaction which calls for an explanation. Further, we can stipulate the form the explanation can take: Job dissatisfaction is the result of conditions which interfere with the individual's straightforward participation in the practices of the organization. We could, using the resources of Descriptive Psychology, construct an a priori categorization of conditions that interfere with participation. Long experience with helping organizations promote job satisfaction leads me to narrow the categories to two essential ones: problems of resistance and problems of significance. Problems of significance lead to people who *cannot* participate; problems of resistance lead to people who *will* not. In either case, job satisfaction is lacking. I have dealt extensively with methods of managing resistance elsewhere (Putman, 1985); in any case, problems of significance are substantially more common and important, so we shall examine them in detail.

*Significance.* Consider a worker who is attempting to participate in the production of a quality product, but who has no real standing to suggest ideas for improvement of the product or its manufacture. As indicated above, the worker lacks eligibility to participate in some important practices; s/he in effect is being told, "Do your part and leave the thinking to us". The result is a degradation of the significance of the worker's activities, and predictable job dissatisfaction.

Participation and significance are crucial and subtle concepts. A useful paradigm of participation is provided by games. Participation in any game—baseball, chess, or whatever—has certain paradigm features: (a) Participation is intrinsic; it is done with no further end in mind. (b) Participation consists of engaging in some particular and characteristic activities (fielding and throwing the ball; moving a bishop) none of which are themselves intrinsically significant and satisfying.

(c) Participation in the game is accompanied by satisfaction—specifically, the kind of satisfaction players of this game get from playing it.

A few important points can be derived from this paradigm. First, note that it is the playing of the game as a player of the game which is both intrinsic and significant. Remove the context provided by the game or the status of player, and significance collapses. Batting practice is at best a necessary evil for many baseball players, and almost everyone hates practicing bunts; hatting and bunting in a game, while in performance terms exactly the same activities, are simply a different matter altogether. The difference lies in playing the game. The young man who plays chess purely to impress his date with his intellectuality is playing a game—but he isn't a chess player, and whatever satisfaction he gets will not be the satisfaction of playing chess. The game itself is what makes the activities in the game significant; only players of that game can participate and get its satisfaction.

This paradigm of participation fits quite well for the practices of an organization. It directs our attention to two facts: (a) practices cluster into intrinsic work patterns which are the organizational equivalent of games, in that they provide a context within which specific activities acquire significance, and (b) just as some people are baseball players but hate chess (and vice versa), each individual in an organization will happily participate in some of these intrinsic work patterns but will be left cold by others.

Experience and reflection lead me to identify four intrinsic work patterns that together seem to account for virtually all job satisfaction: achievement, problem-solving, teamwork and service. (There certainly may be other, equally important patterns, but they have not come to my attention.) Participation in any of these requires the existence of certain conditions, just as one needs pieces and a board to play chess. Dissatisfaction is frequently the result of one or more necessary condition being unmet, which makes participation in that pattern impossible. Let us look briefly at each pattern.

*Achievement.* This is undoubtedly the most familiar and widely available of the intrinsic patterns. It has traditionally been seen as having the strongest appeal for the greatest number in our culture, although I believe that is arguable. Unquestionably it is the source of very substantial satisfaction for many achievers, and equally substantial frustration for would-be achievers whose participation is blocked for lack of a necessary condition.

The satisfaction of achievement centers on the achievement itself. There are four necessary conditions for the intrinsic pattern of achievement to be available; the lack of any one of these makes

participation impossible, just as it is impossible to play soccer without a ball. The necessary conditions are: (a) Goals. Not just any goal will do, of course. At the least it must be a high enough goal to present a real challenge, while not seeming clearly impossible—neither three feet nor seven feet will motivate me to achieve in the high-jump. And for some in the organization, there must be a clear connection between the goal and mission; otherwise, it is "just a game". (b) Methods and resources. Unless one can see some method for attaining this goal, and has the needed resources, there is no reasonable chance of achievement. Actually reaching the goal under these circumstances is a matter of luck, not achievement. (c) Standards. Setting a goal of bringing in four new accounts this week will not by itself create conditions for achievement, even if one can see how to do it. One needs standards to assess just how much an achievement "four new accounts" represents. Standards cannot be arbitrary; even if they are only comparative, they must have some credible basis or else they may be seen as coercive and will likely undermine achievement by creating resistance (see Putman, 1985). (d) Feedback of results. While this is obvious, it is nonetheless overlooked surprisingly often, particularly when the results in question are rather intangible or subjective, like customer satisfaction.

*Problem-solving.* Checkers resembles chess, in that both are played on the same board, but they are nonetheless very different games which are satisfying to a very different group of players. A similar relationship holds between the intrinsic pattern of achievement and that of problem solving. Both involve accomplishment, but this resemblance can be very misleading. To the achiever, getting to the goal is what the game is all about, and one solves whatever problems one must in order to do so. To the problem-solver, the solving of the problem is everything; reaching some goal as a result of solving the problem may be nice, but it is clearly secondary.

Conditions necessary for the problem-solving pattern are: (a) Intrinsic interest. Not just any problem will do; "uninteresting" problems are just a headache. The problem must be intrinsically interesting to the individual to stimulate efforts to solve it. (b) Criteria for success. How will we know that the problem has in fact been solved? It is a truism that, before you can set out to solve a problem, you must know what would qualify as a solution—but surprisingly often people are given "problems" to solve for which the criteria are unclear. (c) Tools and support. The worst thing you can do to a dedicated problem solver is give her an interesting, clear-cut problem and then refuse the tools or support necessary to get the job done—but, again, this happens with surprising frequency in some organizations.

*Teamwork.* Some people find great satisfaction in being part of a well-functioning work team. Achievements and problems in this pattern are simply part of the context in which teamwork occurs. Necessary conditions for teamwork are: (a) Interdependence. It has to be a real team, in which the success of one individual's efforts depends substantially on the efforts of team-members. Merely sharing an organizational umbrella or being designated a team is not enough. (b) Communication. Team members must keep each other informed of relevant activities and progress. (c) Negotiation. As differences arise, a team settles them primarily among themselves via negotiation; otherwise it becomes a group of prima donnas. (d) Leadership. This is required for the individual efforts of the team members to amount to an overall effort.

*Service.* The satisfaction that accompanies serving others is powerful and, I believe, vastly underestimated and underesteemed in our society. The traditional view has it that Americans (especially American males) are primarily achievers; by contrast, finding satisfaction in service is seen as much less satisfying, less prevalent and probably due to low self-esteem. Perhaps this pejorative view of service stems from association with such notions as servant and servile; whatever its origin, it is patently inaccurate. In my experience most people are hungry for opportunities to serve, and find tremendous satisfaction in doing so. This may be, as the late Ron Lippitt maintained for years, the great untapped resource of our organizations.

The conditions for service are straightforward: (a) Access. One must have access to whomever one is serving; for example, you cannot expect an administrative assistant to serve you well while denying him regular access to you. (b) Relationship. Service is a person-to-person thing; it depends on and occurs through the relationship between the individuals. "Impersonal service" is a contradiction in terms. (c) Clear expectations. How can I serve you if I am not sure of your expectations and standards of service? You can have your tea with milk or lemon, one lump or two, however you like it—but only if I know how you like it.

I would like to conclude this section with a few intentionally provocative thoughts regarding work and "growth". In the 1960s and 1970s, a myriad of "growth" or "human potential" methods appeared, each attempting to remedy in some degree a perceived rigidity and stultification in the lives of ordinary folk. One result of this time of exciting experimentation was an unspoken consensus that "growth" is an extraordinary event, highly desirable, and requiring special attention to ensure its taking place. I would like to file a minority opinion. The study of persons and organizations have lead me to the conclusion that



growth—by which I mean a significant increase in an individual's actualized behavior potential—is an ordinary result of participation in everyday work. This is not to say that growth is undesirable; quite the contrary. I mean simply that genuine participation in work is a deeply satisfying matter, which calls out and refines the best in us. The necessary conditions for growth are the same as for living itself—"Lieben und Arbeiten". Living *is* growth, unless something occurs to strip living of its significance. In that case, take care of living; then growth will take care of itself.

### Mission Clarification, Implementation and Renewal

As the final topic of this paper, let us consider, once again, mission.

If an organization is a community with a mission, it follows that, as an organization loses its focus and vitality, it degenerates into a mere community. This is the last and most central of the "irreducible tensions" of organizational life, a rough parallel with the physicalist notion of entropy: with the passage of time, unless steps are specifically taken to avoid it, the focus on mission in an organization (and therefore the alignment and congruity of the actions of individual members) becomes increasingly diffuse until it becomes indistinguishable from a community with no mission. At this point, the "organization" either continues as a classic self-sustaining bureaucracy with little purpose other than maintaining its own existence, it is taken over by someone who infuses it with a new mission, or it collapses. It is to avoid such degeneration that methods dealing with keeping mission alive are needed.

The first set of methods deal with mission clarification. Since mission is meant to serve as a "guiding star" for behavioral choices within the organization, it is vital that the mission be very clear to each member—and that each member has the same clear image. Of course, top managers can clarify mission by decree, but this is rarely very effective in an on-going organization; there is a strong and legitimate tendency to see management as over-stepping the bounds of their authority by coopting mission, which "belongs" to everyone in the organization. To get both clarity and consent from the members requires a more engaging process. Let us look briefly at two such processes which have been used to good effect in organizations: "futuring" and "distillation".

The futuring method relies on the members' ability to project mission into a vision of its accomplishment. (I may not be able to tell you exactly what our mission is, but with a little support I can describe to you what things will look like when we have accomplished it.) Members are asked to "take an imaginative trip into the future of this organization" (say, eighteen months from now) with the stipulation that

"we have done very well indeed in accomplishing what we set out to accomplish". Individually, members write down "everything you see and hear as you look down on this future organization that is an indication that pleases you of what we have accomplished". Once individuals have completed their "future trips", they are collected and shared publicly in a group setting; from these, the group generates a common vision of its "preferred future". (Obviously this is only a quick overview of the process; specific details can be found in Lindemann and Lippitt, 1979.) This "image of the preferred future" can be used to create a specific agenda and action plans for the organization which are clear, aligned and congruent. Roughly a decade of experience with "futuring" methods indicates that it can be very powerful indeed; observers close to the scene, for example, credit a great deal of Ford Motor Company's dramatic improvement in the mid-1980s to a thorough-going application of such mission-clarification via futuring.

The "futuring" process results in mission clarification but may not produce an explicit statement of mission. "Distillation", by contrast, focuses on a progressively refined description of current activities that results in an explicit mission statement. The mission statement can then be used, for example, to begin and anchor a round of futuring. Distillation begins by asking members, in a group context, to write down "everything we do in this department that is consonant with our mission—no matter how obvious or trivial it seems". The group builds a single list of such statements (with the proviso that discussion or debate will be deferred until later) and is encouraged to expand it until the ground is thoroughly covered. Then the group is invited to "step back a bit from the list and look at it. Now call out simple declarative sentences that describe the activities on this list—try to stay with the very obvious". Finally the group is invited to look at this second list of declarative sentences and see what patterns emerge from them. These patterns form the basis for the mission statement. This method is especially useful in ongoing organizations in which one finds conflict regarding direction; for example, a particularly fractious and divided research department of Bell Labs used it to work out a mission that energized its members while promoting alignment.

Mission clarification, by whatever means, is only the first step. It must be followed by implementation. As previously mentioned, futuring is an excellent starting point for implementation; the organizational literature is filled with good methods for goal-setting and action-planning. Regardless of the specific method employed, the end result must be a specific plan for the individual which guides him in deciding how to apply himself and his resources most effectively in pursuit or support of mission.

Management's responsibility for ensuring mission implementation does not end with goal-setting, of course; as the old saying has it, "It's not what *expected* that counts; it's what's *inspected*". Managers must periodically review performance with their subordinates and a constant topic must be "What are you doing to contribute to the mission?" In particular, members in staff positions must be frequently challenged and supported to draw explicit links between their projects and activities on the one hand, and accomplishment of mission on the other. Staff, if left to follow their natural tendency, will choose activities that make sense in terms of the logic of their technical specialties rather than in terms of contribution to mission; a manager who allows this tendency to go unchecked will see progressive diffusion of the force of mission within the organization (or else will inadvertently foster war between line and staff).

Mission renewal is, I believe, the most critical factor in ensuring the long-term success and continuity of an organization. At least two major tasks are involved—initiating newcomers into the "culture" of the organizational community, and periodic revitalization of clarity and commitment among members. Organizations which have been successful over time invariably have strong, almost ritualized methods of introducing new members to their essential mission and choice principles (examples that come readily to mind are the Salvation Army, International Business Machines, and the Masons). "Mentoring"—the practice of assigning new members to the tutelage and protection of a successful older member—is a particularly powerful method of transmitting the culture. Many organizations use training and orientation meetings as a venue for stressing the importance and value of the mission; some have even experimented with computer-based "mentors" to supplement training. In general any method of embodying the organization's choice principles—culture heroes, slogans and the like—can serve as a means of mission transmission and stabilization.

Finally, mission must be periodically revitalized. Times change; a mission that made sense before may need to be adapted, or even transformed, to fit today's circumstances. Goal setting methods help ensure that the implementation of mission stays current; to revitalize the mission itself requires a method like futuring that clarifies and stimulates the commitment of the individuals.

### Summary

Organizations are among the most important and complex aspects of modern life. I have attempted to demonstrate the utility, both conceptually and pragmatically, of using the perspective and concepts of Descriptive Psychology to shed light on what organizations are and how

we can effectively deal with them. A framework has been delineated for future development; at the very least, it seems that both the prospect and the need for such future developments have been established.

## ACKNOWLEDGMENTS

This paper represents at least twenty years of intellectual influences. The bibliography and this note will inevitably leave out some who should have been included, had I but remembered. Among those whose contribution clearly springs to mind are James N. Farr, who gave me my first intensive experience in working with organizations and my first exposure to someone attempting to make conceptual sense of the whole scene; the late Ron Lippitt, who shared his wisdom tirelessly as partner, colleague and friend; Keith Davis, whose patience as an editor is matched only by his enthusiasm as a cheerleader; Tom Mitchell, whose steadfast insistence on the importance of linking Descriptive Psychology to other intellectual traditions was decisive in my approach to this paper; and of course Peter G. Ossorio, who kept demonstrating how a Descriptive Psychologist sees the world until eventually even I finally got it.

This paper is dedicated to the memory of Ronald Lippitt, the most tireless and selfless benefactor of organizations I have known.

Author's address: Descriptive Systems, 1019 Baldwin Avenue, Ann Arbor, Michigan 48104.

## NOTES

1. The parametric analysis of communities presented here is essentially the same as in the "Communities" paper (Putman, 1981), except for the addition of the "choice principles" parameter which Ossorio included in his analysis of the closely-related concept of "culture" (Ossorio, 1981/1983). I originally subsumed choice principles under the practices parameter, which, while conceptually adequate, turned out to be awkward in application. In particular, the need to represent the relations between ethics and mission in organizations made it clear that choice principles were best not lumped with practices.

2. The subject of this paper is organizations, not management; accordingly, I have chosen to restrict discussion of management to the minimum needed to indicate its special conceptual and practical place in organizations. An exhaustive account of management practices can be found in Drucker's magisterial work (Drucker, 1974); an equally exhaustive, albeit quite different account is furnished by Dan Popov's "Total" model of management (Popov, 1985), which has at times been inaccurately termed a model of organizations.

3. The version of the Intentional Action paradigm presented here is a slight adaptation and modification of Ossorio's formulation. A few of the distinctions within the Intentional Action paradigm are crucial for the conduct of behavioral science, but seem cumbersome for the task of improving productivity; accordingly, I have trimmed away three of Ossorio's eight parameters and have subsumed their useful aspects under the single concept of "eligibility". Over the last dozen years this formulation has been used to improve productivity among literally thousands of people in hundreds of organization, to some degree at least thereby vindicating the reformulation.

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# THE USE OF THE STATUS CONCEPT IN DEVELOPING EFFECTIVE RELATIONSHIPS BETWEEN POLICE CHIEFS AND OFFICERS

Laurie L. Bergner

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## ABSTRACT

The concept of status, so well utilized in clinical applications, can also be a powerful tool in developing the kind of positive, constructive relationships with police officers that lead to higher quality and quantity work. This article presents three such applications of the status concept. First, nine policies for treating the officers as positive status individuals are described. Second, ways in which chiefs can become effective status assigners are described. Finally, how chiefs can train their supervisors to be effective status assigners is discussed.

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The position of police chief, by virtue of being highest in the police department's managerial hierarchy, provides a unique opportunity to influence the officers' work. This paper is designed to look at one of the most effective ways of getting the best from the officers: by conferring positive statuses on them. The meaning of this idea and how it influences officers' work will be described below, along with nine policies for treating the officers as individuals of positive status. Then we will describe how the chiefs can become *eligible* to confer positive statuses and how they can teach other supervisors to be accreditors with their officers.

### WHAT IS STATUS?

The concept of status (Ossorio, 1976, 1982), previously utilized mostly in clinical applications (Bergner, 1981, 1982, 1985; Kirsh, 1982; Ossorio, 1976; Schwartz, 1979), can be a useful and powerful tool in developing the kind of positive, constructive relationships with officers that lead to higher quality and quantity work. The word "status" means "position in relation to . . ." A given individual may have a variety of statuses that reflect his relationships to everything in the world, including himself. Any individual can assign a status to another individual, who can then accept or reject that status assignment. Individuals also assign themselves statuses. Assigning a status to another person involves giving him a place in one's world; it follows that certain behaviors express being in that place. Both the assignment and the acceptance or rejection of said assignment have implications for how these individuals *act*.

For example, if Officer Jones assigns his colleague, Officer Smith, the status of "trustworthy", he may be willing to lend him money or to make him privy to certain confidences. If Officer Smith accepts the status of trustworthy, he will be likely to repay the money and keep the confidences. Furthermore, if Officer Jones finds out that Officer Smith has not repaid the money or has broken the confidence, he will be likely to give him the benefit of the doubt, because he might think, "I find this hard to believe; Officer Smith is not *that* kind of person. Maybe something else can explain this". Only if the evidence is overwhelming so that it is no longer possible to support the status of "trustworthy" will Officer Jones change that status assignment.

### How Does the Conferring and Acceptance of a Given Status Affect Work Production?

If an individual accepts a given status, he acquires an *eligibility* to act on that status; that is, he will see himself as eligible to act on that



status. If given reason, opportunity and the relevant skills, the officer ordinarily will act on that status. Let us suppose that Officer Jones sees himself as having the positive status of "insider". Officer Jones has a *reason* to get ahead, to get recognition; has an *opportunity* when he sees something that needs improvement; and has the *relevant skills* to know what needs to be done to improve a situation. Given all this, if he also sees himself as *eligible* to act on these because he is an insider, he may then do so by offering ideas for improving the traffic division or for better organizing weapons.

Conversely, if he sees himself as having the status of "outsider", he will see himself as *ineligible* to act in significant ways. Then, even if he has the same reasons, opportunity and skills, he may choose *not* to present his ideas on improving the traffic division or weapons organization because "an outsider just doesn't do something like that". He may question the validity of his ideas or whether others will take them seriously. Note that the difference between the statuses "insider" and "outsider" translates directly into a more or less valuable officer.

## THE POLICE CHIEF AS STATUS CONFERRER

The position of police chief provides an opportunity to affect what statuses are conferred on officers, and therefore on what eligibilities they will be likely to act. Put simply, *conferring positive statuses on the officers increases the likelihood that a chief will get the best out of them.*

To place officers in these categories is to be prepared to treat them in these ways. How does this treatment square with the fact that not *all* police officers are positive-status individuals? The policy might be seen in the following way: Like a jury that acts on the policy that individuals are innocent until proven guilty, a chief might take the policy that he will treat police officers as having positive statuses until and unless he observes them to be otherwise.

There is good reason to proceed in this way. The selection process, coupled with graduation from the police academy, selects out high risk and inappropriate candidates. In the absence of further information, it makes sense to treat all new officers as valued members of the force, especially with the knowledge that this treatment gives them the best head start possible. If the skills are there, they will probably act on them; if they don't, then there is good reason to begin to doubt that they *can* act on them. But at least one knows they won't not act because of perceived ineligibility that the chief conferred. It is better to err in this direction than to select out potentially valuable officers.

We can also think of it the other way: If negative statuses are conferred and accepted, the officer may feel depressed, which leads to

hopelessness and loss of energy, negatively affecting work production. Rejection of negative status may produce hostility. While hostility could result in an attitude of "I'll show them I really am good", it could just as likely result in an attitude of getting even, lying down on the job, or undercutting superiors. None of these results in good police work.

This way of thinking is different from *make it hard and seeing who pulls through*. That policy is likely to lose valuable officers, which is a waste of potentially good officers, and of time and money for the department. It is also different from the idea of "babying" the men. The position of initially conferring positive statuses is that this is the best chance of bringing out the best in the officers. It assumes, however, that with additional knowledge the chief will adjust his assessments, confer different statuses on the officers if called for, and act accordingly. Notice that in the policies presented below, calling a spade a spade and acting on negative statuses are important aspects.

### Treating the Officers as Positive Status Individuals

The chief's position must be communicated to his officers. It might be assumed that this would happen automatically, but that is not necessarily true. It is easy to allow old habits of communication to send other messages to the officers, especially in the cynical, sarcastic atmosphere of many police departments. It is incumbent on police chiefs to develop ways of communicating that they see their officers as individuals with positive statuses.

Communicating to the officers that the chief sees them as positive status individuals involves *treating* them in such a manner. Because actions speak louder than words, this involves more than simply complimenting the officers. There are a variety of ways to treat the officers as positive status individuals. Following are nine policies for such treatment. While more could be mentioned, these are ones that are most likely to come up in police work.

1. Treat new officers as valued members of the force. Even new officers who are still under probation can be treated as valuable. They can be treated as responsible police officers, integral members of the department, proud of their work and responsibilities.

Example: Chief Barlow was a new chief, brought in from outside the department. He determined that he would develop new ways of treating the new officers as valuable. First, he attended their graduation from the police academy. He went out of his way to meet each new officer personally, to learn and call them by their names. He solicited ideas from them on how to improve the department, stating that "new officers

have a unique, fresh perspective". He assigned a "buddy" to each new officer, utilizing his best officers for this assignment.

He then worked to make sure that they had every opportunity to learn relevant skills, so that they could become "one of us" as quickly as possible by becoming skilled officers. He provided close supervision with a great deal of detailed feedback, both positive and negative. This was done not with a sense of "Big Brother is watching you", but rather with a sense that "your work is so important that we want to give you the best head start possible". The focus was on help and direction rather than punishment. He also made the position of training officer a very important one. He made sure that he did not fall into the trap of retaining poor officers after probation, and he provided a little party for each officer as he came off probation. This party was an "accreditation ceremony", that is, a way by which one person acts by virtue of his position to confirm another person in his new position in the community. It publicly demonstrated and celebrated the new officer's full acceptance as a full-fledged police officer.

2. Treat the officers as professionals. To see oneself as a "professional" is to be proud of one's profession, to believe that one is competent in his profession, and to see oneself as a representative of his profession. A police officer who sees himself or herself as a professional might see police work as essential in holding the fabric of society together, might be proud of developing ways of thinking critically and analytically regarding crime, and might find himself feeling furious when police officers are referred to as "animals" in public.

Conversely, an officer who does not see himself as a professional might not care if he is seen drunk in public while still dressed in uniform after work, might not be proud of the role his department played in catching a thief, and might not care about developing his competence in picking up clues in a theft. It is easily seen how the status of "professional" affects police officers' work and conduct.

Example: Officer Harmon was suspicious. A pizza delivery boy claimed he'd been robbed of his pizza, but his story didn't make sense. The officer picked up a teenager coming out of the house where the pizza had been originally ordered and, having some reason to suspect him of complicity, conceived the idea of taking him in for questioning under the pretext that he had been drinking while underage, hoping that he would confess while scared. Just then the chief came by and stopped to find out what was happening. The officer took him aside, described the situation without mentioning his plan, and asked the chief, "Do you want me to bring him in for questioning?" The chief thought a minute, and answered, "No, let him go".

Officer Harmon was furious. He believed that he had not been treated as the professional he liked to think he was. Imagine how much more proud this officer would have been if the chief had asked him what he wanted to do and why and then supported and even praised his picking up small but relevant clues in this case. And imagine also how much more motivated Officer Harmon would have been in the future to continue thinking analytically and acting on his conclusions.

3. Treat the officers as allies in a joint effort. Police officers overlook much disagreement and other dissatisfactions when they believe they are all working together and that the chief is really behind them. Unfortunately, in many departments a confrontational atmosphere builds up in which the chief and his officers see each other as enemies instead of allies. Sometimes this happens because of the position the police chief is in, caught between the city council and the officers, who may want different things. Other times it is simply a cyclical pattern in which initially small events give each the impression that the other is not on their side, and they each begin treating each other accordingly.

Treating the officers as allies can take various forms. The chief might fight for their salary, benefits, and training; support them in the face of attacks from outside the department by giving them a fair hearing; and generally do what he can to make the job stimulating and to relieve stress where possible. It is always important that the chief find ways of letting the officers know that he is doing these things for them. False modesty only works against him. Officers are eager to work for such a chief because they know that he is working for them.

Example: Officer Brown had been on the force twelve years. He was cynical, treating all his supervisors as the enemy, and was sarcastic and baiting with his sergeants at roll call. One day, Officer Brown suddenly felt he could not face the day. Immediately after roll call, he got into his squad car and drove home. When he arrived there and saw his wife's surprised face, he suddenly realized what he had done: He had left without permission. Panicked, he returned to the department. There his two sergeants sat down with him and just talked to him and listened. They could see the stress buildup and gave him no negative consequences, nor did the chief when he learned of it. Officer Brown learned to his surprise that his supervisors and the chief were on his side, friends rather than the enemies he had always thought. This incident led to a change in Officer Brown's attitude that, over time, dramatically increased his productivity and his job satisfaction.

It should be noted that if his kind of behavior were to continue, it would have to be met with negative consequences. One of the factors which made it reasonable not to punish this man was that it was a first-time event for a dedicated officer.

4. Treat the officers with respect for their intelligence and common sense. Too often, decisions are made on the assumption that the officers would not understand and respond to a commonsense decision. This tends to lead to decisions that are not common sense either! Generally speaking, when officers are treated as having good judgement, they will recognize that respect, be proud of it, and want to continue earning it.

Example: The town of Scottsdale was right next door to Rolling Hills. There were other, more distant towns, in the area. The Scottsdale department had a rule that anyone who lived outside the city limits could not go home for dinner. Officer McBean was incensed. He lived just over the town limits, closer to the police department than many officers who lived in Scottsdale itself. Working second shift, he wanted to go home for dinner so that he could see his wife and child. The chief supported the existing rule because he believed that if he opened up the rule to include Rolling Hills, other officers who lived in neighboring towns further away would demand the same privilege.

This example demonstrates a lack of respect for the men in that the chief assumed that they could not understand and accept the concept that they could not go too far away from the department for dinner. He assumed a childish competition and jealousy and a lack of common sense. While it is often true that one or two verbal officers might protest this kind of rule if it were opened up, it is also true that the overwhelming majority will not protest it if it makes clear sense and is presented in such a way that the sense it makes is obvious. It is up to the chief to stand up to those few who unreasonably protest and not let them influence him to be unreasonable with everyone else just so that he will not have to deal with them. Expecting reasonable rules to work conveys a respect for the group that is an important message to them.

5. Treat the officers with trust for their integrity. Treating the officers with trust provides incentive for them to continue meriting that trust. There is nothing more degrading for a subordinate than a clear indication that he is not trusted. Of course, this trust should be initially assumed and continued only as long as there is no significant reason not to trust. If trust is broken by repeated acts, it would be foolish to continue trusting. But unless there is reason to see it differently, the general assumption should be that they are good men and women who want to do a good job and who act with integrity.

Example: The Hopedale Police Department had an overtime regulation of one hour. Most of the officers respected the spirit of the regulation and saved up ten minutes here and 15 minutes there, putting in for the hour overtime when the times added up to approximately one hour. A few of the officers took advantage of the regulation and put in for the hour overtime every time they worked ten minutes overtime. Because of

these few officers, the regulation was changed to a 15-minute overtime. The officers were upset. They took this change to mean that the chief did not trust them; this was especially insulting to the vast majority of officers who had never abused the hour overtime regulation. The result was that all the officers began to put in for every five or ten minutes overtime.

Treating the men without trust when most had done nothing to warrant this mistrust was detrimental to relations between the chief and his officers. Being trustworthy is a source of great pride for many officers, and it is essential to treat them as worthy of the trust they have in fact merited.

6. Give the benefit of the doubt. Sometimes a given situation could be interpreted or described in several different ways. All of them fit the facts, but some are more negative than others. In these instances, it is advantageous to choose the description that is most positive. Police officers are familiar with this policy in its opposite form when dealing with suspects in crime, i.e., "once you have good reason to suspect an individual of a crime, it is best to treat evidence in its *least* positive interpretation". But as police officers are not suspects, they should not be treated as individuals already under suspicion.

Example: Officer Norris had to take a six-month leave of absence for emotional stress and drinking. He worked hard during this leave, going regularly to a therapist. He returned to work and did well for the next three months. One day he called in sick. When he returned to work the next morning, he found a note from his chief: "Are you drinking again? If you're having troubles again, come on in. You know you can talk to me."

Although this chief meant this to be supportive, it betrayed his negative thinking about Officer Norris. It gave Officer Norris a clear message that if he took sick days like everyone else in the department, he would be immediately suspect of having further problems. Now he had to go overboard to prove he was as good as everyone else. It meant he was under a constant cloud of suspicion, and it meant he could no longer use his sick day benefits as they were intended to be used.

Notice that in this instance, the chief actually had several options in how he viewed the sick day that Officer Norris took. He could have viewed it as evidence that Officer Norris was drinking again (as he did); or he could have viewed it as indicating that Officer Norris was simply sick that day. Both fit the facts, but there is more advantage in taking the less negative option. If a negative pattern began to appear over time, then it would have been important to recognize that a problem probably existed and to address it. But with three months' good work and good behavior, there is every reason to accept the sick day at face value and

thereby demonstrate trust. Giving the benefit of the doubt would avoid putting that officer under the stress of operating under suspicion.

7. Treat the officers as individuals who deserve to be treated fairly. Even if officers do not like a decision, they are likely to accept it if they believe that it is a fair decision. Fair decisions enhance motivation because the officers know that they will be treated with the same fairness. Conversely, nothing undermines motivation like assuming that we will be treated unfairly. When a chief plays favorites, uses another's ideas without giving him credit, or goes back on promises, his subordinates become resentful and lose motivation. It is far better to be disliked than to be viewed as unfair. While this may sound obvious, it is often less than completely clear what constitutes fairness, as the next example demonstrates.

Example: Officer Allen was a motivated man. In addition to being a good officer, he became fascinated with crime analysis. He requested and received a crime lab kit, and put in much of his own time to becoming somewhat of an expert in that field. At the same time, Officer Smith was getting into trouble on a regular basis for being overly aggressive on the street. A highly desirable job in the crime lab opened up. Feeling the need to get Officer Smith off the street, the chief put him in the crime lab position. Officer Allen was very disappointed. He believed that the job he should have earned for his hard work had been given to Officer Smith for his aggressive, irresponsible behavior.

While one can sympathize with this chief's dilemma regarding the aggressive behavior of Officer Smith, the effect on Officer Allen was very negative. A positive, highly motivated officer became bitter, and his willingness to initiate his own work decreased as he became convinced that he would not be rewarded for his efforts.

8. Treat the officers as individuals whose ideas deserve due consideration. What does it mean to give an officer's ideas "due consideration"? It simply means to give him a fair hearing. It does *not* necessarily mean agreement with him. When an officer knows that what he has to say has been genuinely considered, he will be much more likely to accept the response, even if it is not what he wanted to hear. It makes good sense to give *all* suggestions due consideration, whether they are good ideas or poor ones. Good ideas improve the department and ultimately result in making the chief look better. But even bad ideas ought to be considered and feedback given to the officers about why the ideas were not utilized. This response verifies that the ideas were in fact seriously considered, which demonstrates respect.

Ideas usually come in two forms: (a) suggestions for change and improvement, and (b) complaints. Positive ideas for change are easier to consider because they are not assaultive, as complaints tend to be.

Complaints, on the other hand, are tiresome to hear, and they sometimes seem to focus on areas that are not possible to change. But there are several reasons to treat them seriously. Even if many of the things officers complain about cannot be changed, many of the complaints are, in fact, justified. It conveys respect to concur with justified complaints. Furthermore, complaints, as well as positive suggestions, can provide valuable information about the nature and severity of problems or perceived problems in the department. Sometimes there will be a theme or pattern to them which can tell the alert chief that there is a widely perceived problem about some issue in the department. When complaints are frequent and intense about a matter, it usually behooves the chief to consider that issue carefully.

Frequently the very perception of not being listened to promotes further complaining! Once a man believes he has been heard and taken seriously, that is sometimes enough; he may not need or expect any change to come of it. But when complaints are taken lightly or laughed at as childish, that may provoke an officer to intensify his complaints until he believes he has been taken seriously.

Example: A new police chief hired from outside the department began his job only to be immediately swamped with numerous complaints. It soon became apparent that the men were generally angry because of a history of not being taken seriously by the administration. Over time this had resulted in the current atmosphere of constant complaints and demands for changes. The new chief determined to change this. He took a small but strong demand, that of changing the color of the uniform shirts, and sent a memo to all officers that he would consider this suggestion and get back to them in a few weeks. Three weeks later he had a simplified budget to show the men. The budget showed how much money was allotted to different areas. An explanation pointed out that due to more car accidents than usual, much of the discretionary monies had to be spent on car repair and new cars. The chief noted that he was not willing to give up another item, such as training, for new shirts this year, but that he would consider new shirts next year if the number of accidents decreased. The chief heard no more demands for new shirts, even though there was some grumbling by those few officers who would have preferred new shirts to training.

Notice that although the men did not get what they wanted, they did get a clear response with reasons for how monies were being spent. Rather than feeling dismissed as "complainers", this response demonstrated to them that their demands were being taken seriously. This was the real issue and was more important than receiving new shirts. Tension in the department visibly decreased as the chief continued to use this approach.



9. Support the officers by not supporting unacceptable behavior. Some supervisors believe that support means that you stick up for your officers and protect them from getting into trouble, even if they are clearly wrong. This is not support. In an important sense, it does not treat them with respect because part of respect is holding people responsible for their behavior. It also gives a message to the rest of the department that this behavior is acceptable. This leads to these individuals getting into further trouble down the road because they are not held accountable for this behavior.

Example: Officer Bingham was a hothead. He was likely to dive headfirst into difficult situations, especially if they involved Hispanics. Everyone in the department knew it. One day, he had to be restrained by his sergeant from hitting a Hispanic male without just cause. The sergeant wrote a report on the incident for the chief. When the Chief called Officer Bingham in, his lieutenant went in with him and provided excuses for him. The lieutenant succeeded in getting Officer Bingham off scot free.

Officer Bingham went back out on the street with what was in effect a license to continue his aggressive behavior. He was a menace to citizens, to his fellow officers, and to himself. This incident was not "supportive" to anyone. It increased stress in his fellow officers because they had to face the danger of continuing to work with him, and it caused considerable stress in Officer Bingham because he received no clear messages about how he should change his behavior.

## THE CHIEF AS EFFECTIVE STATUS ASSIGNER

The chief's formal position as highest authority in the department gives him the opportunity to be a significant, effective status assigner for the officers. But this opportunity can be enhanced or lost by the way in which he presents himself to his officers. He must be viewed by his officers in certain ways in order to be accepted by them as eligible to assign them statuses. The most important of the chief's statuses are the following:

1. **Credibility.** The chief must be perceived as believable, an honest and competent status assigner. Such traits as incessant positiveness or negativity, lying, undue tentativeness, or frequently changing decisions lead to a loss of credibility.

Example: Chief Harrington had been hired as a chief from outside a local police department one and a half years ago. When the sergeants examination was held, he had a discretionary ten "chief's points" to give each candidate as part of the total score. Traditionally, these chiefs

points were utilized to enable the chief to exercise his knowledge of the candidates regarding who would be a good leader, something difficult to measure on the written and oral test. Chief Harrington gave every candidate five points, stating that he "didn't know the men well enough yet to make such an important decision". The officers were furious. They believed that after one and a half years he did know them well enough, or should know them well enough if he didn't, or should have been able to get that information from their supervisors. They believe that the chief was simply avoiding making a difficult and unpopular decision. He lost credibility with them.

2. Being his "own person". This trait refers to an individual's being free, willing and able to "tell it like it is", whether the information is positive or negative, whether he agrees or disagrees with others, whether he is cooperating or confronting others; and to set self-respecting limits on what the officers will do or not do in relationship to the department and to the chief. Such an individual appears strong, and his positive opinions will be seen as worth considering because he also can give and does give negative opinions.

Example: Chief Brown was hired after a bitter fight for the position of chief. Following his being hired, he leaned heavily on his Assistant Chief, who had also been in contention for the position, for information and opinions about the department. He began to receive information from a variety of sources that the Assistant Chief was publicly undercutting him in front of the officers when he was not present. Chief Brown ignored this information. All the officers knew that the Assistant Chief was undercutting him, and they began to see him as weak for not dealing with the situation.

3. A member in good standing of the community. Only a member in good standing in the community can initiate others into the community. If a chief is not a member in good standing in the department, if he is seen as irrational, unacceptable to the officers, or insignificant, his accreditations will not be effective.

Example: Chief Dearborn was hired from outside a conservative local police department to be their new chief. This chief came in with a bias toward the "social work" aspect of police work, as opposed to the "crime fighting" aspect. To this end, he quickly began to institute a variety of changes and reforms in the department to beef up their work with juvenile delinquents and family disputes, but did nothing about crime. He quickly lost respectability with his officers, who did not agree with or respect his goals.

4. "One who knows the officers". In order for the chief's opinions regarding the officers' statuses to be respected, it must be perceived that

he *knows* the officers. It is obvious that if he does not seem to know them, his opinions regarding them will not be taken as valid. To this end, a chief must make it his business to learn the names and faces of each officer and to have lines of communication in place to give him valid information regarding the work of each. He ought then to comment on this information from time to time, both the good and problematic work performance of the officers, both to show his interest and concern, and to make his knowledge obvious to them.

Example: Chief Butler was hrought in from outside the department. After a year as chief, he still did not know most of the officers by name. He did not know about their family situations or their job specialties. He rarely attended roll call, and never came for the night shift. When he pronounced opinions regarding the officers, they carried little weight.

## TRAINING OTHER SUPERVISORY OFFICERS TO FOLLOW THE POLICIES

The chief is a key status assigner, but the policy of treating officers as positive status individuals can be maximized if it is carried out at all management levels. Supervisory officers at all levels can be significant status assigners, especially because they know so much first-hand about the officers under them. To this end, the chief can encourage his supervisors to do the following:

1. In rating officers for promotion, give high ratings to those who demonstrate the good leadership quality of being accreditors themselves. These are officers who have the qualities mentioned above regarding the chief who is an effective status assigner: credibility, being his own person, being a member in good standing in the community, and knowing other officers. Officers who demonstrate these qualities will have the respect of the other officers and will tend to make good managers.

2. Actively, explicitly encourage and reward the use of these policies.

3. Provide training in the thinking and use of these policies, so that they understand them and how they can be effective in managing officers.

4. Focus part of staff meetings on discussions of significant incidents and events involving the officers. These discussions would focus on analyzing what the problem actually was and whose responsibility it was.

5. Reward good suggestions by supervisors; have them reward good suggestions and good work by officers.

## SUMMARY

This paper was designed to demonstrate how the concepts of status, eligibility, and accreditation can be utilized to help police chiefs develop positive relationships with their subordinates that lead to higher quality and quantity work. To this end, these concepts were defined and applied to police work, with nine policies for treating police officers as positive status individuals. Becoming effective status accreditors and teaching other supervisors how to be accreditors were also discussed.

## ACKNOWLEDGMENTS

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# TECHNOLOGY TRANSFER AND CULTURE CHANGE

James M. Orvik

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## ABSTRACT

A paradigm case formulation of technology is developed to provide a conceptual framework for addressing the process of culture change. The Descriptive Psychology approach to the concept of culture is reviewed, followed by a conceptualization of the transfer of technology across cultures. The Technology Transfer Model illustrates the potential for Descriptive Psychology to aid in developing effective social policy using the general criterion of behavior potential as a choice principle.

Three anecdotes will serve to introduce the subject matter of this paper. The first concerns a recording made in 1939 of the Verdi "Requiem Mass" in which the tenor solos are performed by one of the most acclaimed singers of the twentieth century, Beniamino Gigli. The interesting thing about the performance is the lavish use Gigli makes of *portamento*, a musical ornamentation in which one note is carried to

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another by a slight scooping effect. Hearing the recording today, one is struck by how dated the performance seems and, at first, one is inclined to blame it on the outmoded recording equipment. Further observation, however, leads directly to Gigli's choice of style as the source of the impression. Not only is his rendition out of fashion, the quality of his performance is difficult to evaluate because the difference in standards between then and now has grown slowly and subtly enough to take us by surprise.

The second anecdote concerns a recent event in Kodiak, Alaska, reported in the *Kodiak Times*, June 13, 1985. United States Fish and Wildlife agents confiscated from local shops a variety of handicrafts fashioned out of sea otter by Marina Katelnikoff, an Alaska Native. The items were said to violate an exemption to the Marine Mammal Protection Act of 1972 which allows Alaska Natives to make and sell handicrafts from the hides of marine mammals. The federal agents questioned "if some of Katelnikoff's items fall in the category of 'traditional Native handicrafts'". A Fish and Wildlife spokesman stated: "Any items determined traditional items of authentic Native handicraft or clothing will be returned to Marina or the shops they were seized from."

The third anecdote comes from the lower Kuskokwim River in South Western Alaska sometime during the mid-1970s. A young Eskimo boy had to be flown from his home village to the Public Health Service Hospital in Bethel for extensive repairs to his broken jaw. He had been kicked in the face during school recess by another boy who had seen television for the first time in that village the night before. One of the inaugural programs aired by this newly arrived technology was "Kung Fu", a series remembered by some of us for its fascinating mixture of mystic spirituality and vengeful violence.

These anecdotes introduce three interrelated aspects of the general subject matter of culture: (a) culture change, (b) culture contact, and (c) technology. The first anecdote reminds us that, aware of change or not, part of the concept of culture is that change is always happening. The second anecdote illustrates that cultures in contact with one another can, and usually do face problems associated with conflicting social practices. The third anecdote introduces a third fact, that a technology transferred from one culture to another can initiate a host of difficulties in the midst of its intended benefits.

What makes these aspects of culture relevant to Descriptive Psychology is that they all happen on purpose, i.e., they all involve the intentional actions of persons. There is a paradox, however, that despite the logical necessity of intentional action as the basis both of technology and technology's role in culture change, it never seems possible to trace

particular outcomes to particular actors. Given this paradox, it seems reasonable for the study of culture change to have fallen typically under the domain of sociology, economics, or other social sciences dealing with large-scale social processes. As long as these processes involve the behavior of persons, however, no attempt at their explication can be complete without thorough psychological description. The resources of Descriptive Psychology are rich enough to make intelligible the role persons play in the relationship between technology transfer and culture change.

Building as much as possible on formulations about culture already developed in the Descriptive Psychology literature, this paper seeks to extend those formulations into the analysis of technology, specifically the transfer of technology across cultures. The analysis will try to accomplish three main goals: (a) to bring to light features of the concept of technology involved in its transfer across cultures, (b) to provide a basis for future analyses of the wider process of culture change, and (c) to demonstrate possibilities for the effective use of Descriptive Psychology in the development of social policy.

The remainder of the paper is in three main sections. The first section is a review of the concept of culture as developed in Descriptive Psychology. The second is a conceptualization of the technology transfer model and its relationship to culture change. The third section is a discussion of culture change and the use of Descriptive Psychology in developing social policy.

### **The Concept of Culture**

There is now a sizable body of contributions devoted to the concept of culture within the larger literature of Descriptive Psychology. A general formulation of the concept was first presented by Ossorio (1981/1983). Major elaborations and applications of the culture concept were offered at the same time (Aylesworth & Ossorio, 1983; Silva, 1983; and Torres, 1983), mostly dealing with problems of individuals meeting their needs in new and unfamiliar cultural settings. Orvik (1985) used the concept of culture in a discussion of the concept of migration.

Other works in Descriptive Psychology are related closely enough to the concept of culture to warrant mention here. In his development of the community concept, Putman (1981) outlined the main parameters from which Ossorio (1981/1983) was able to generate the full conceptualization of culture. Lasater (1983) developed a framework for studying stress and health in a small community that would be entirely compatible with a culture-sized application of his model.

Ossorio's parametric analysis of culture (Ossorio, 1981/1983) provides direct access to how one culture is the same as or different from another. Formula One is a list of these parameters.

Formula One:

$\langle Cu \rangle = \langle M, W, S, L, SP, CP \rangle$ , where

CU = Culture

M = Members

W = World

S = Statuses

L = Language

SP = Social Practices

CP = Choice Principles (Ossorio, 1981/1983, p. 31)

Each of these parameters is discussed at length in the original article and so need not be repeated here. For the present paper, because this formula serves to differentiate one culture from another, it can also serve to differentiate a single culture at two points in time. That is, the above conceptualization provides a way to account for culture change, a matter of great importance in the conceptualization of the role technology can play in bringing culture change to pass.

## The Cross-Cultural Transfer of Technology

This section outlines the concept of technology and the part it can play in culture change. Of particular interest are cases of culture change associated with the cross-cultural transfer of technology. The concepts presented here grew out of a need to comprehend the complex array of forces, mostly social forces it turns out, influencing the rapid deployment of high level telecommunications technology among the cultures of rural Alaska. These developments came about to solve a wide range of economic, educational, and social problems endemic to that environment (Orvik, 1977; Pittman & Orvik, 1976; Hills & Morgan, 1981). How well these problems have been addressed stimulated the conceptualization of the models on which the present analysis is based.

That the transfer of technology across cultural boundaries can lead to rapid culture change needs little documentation added to that already in existence. The literature on modernization alone (e.g., Dawson, 1969; Doob, 1967; Kahl, 1968; Smith & Inkeles, 1966.) fills many volumes. Very little has been done to develop a comprehensive conceptualization of why technology gets transferred, and yet such a package would go a long way toward helping us understand the difference between technology transfer going right and technology transfer going wrong.



What is described here is a model for identifying the key components of technology transfer. The model consists of a number of subsystems, each of which plays an important role in the overall process. The concept of technology itself, being directly linked to how persons meet their Basic Human Needs, should be discussed before the various subsystems are outlined.

### Technology

Dictionary definitions of technology are of little value because they are noncommittal as to the role technology plays in human life. For example, the Random House Dictionary of the English Language defines technology as "the branch of knowledge that deals with industrial arts, applied science, engineering, etc.", or as "the application of knowledge for practical ends, as in a particular field" such as educational technology.

Oswalt, an anthropologist, defines technology as "all the ways in which people produce artifacts" (1976, p. 33). While this definition is at least more inclusive than Random House's, it makes no more conceptual headway inasmuch as it seems to exclude the artifacts themselves as the primary focus. In fairness to Oswalt, it should be pointed out that the focus of his work is on the artifacts themselves as a record of the technological complexity of the world's various cultural systems.

The problem is not so much with the definitions themselves as with the fact that the utility of definitions is inherently limited to what we already know that can be appealed to for recognition (Ossorio, 1979/1981). What is needed is an articulation of the concept that specifies the characteristics of an unambiguous, or paradigm, case of technology. The formulation of the paradigm case can then be used as a standard for generating related cases on the basis of how they differ from the paradigm.

A paradigm case formulation (PCF), while different from a parametric analysis (e.g., Formula One), serves much the same purpose: to generate a range of possibilities in a domain. A parametric analysis does this by reference to the dimensions (parameters) of a domain, each dimension boasting a range of possible values. One case can be distinguished from another in terms of the different values these parameters assume. A PCF accomplishes the explication of a domain by designating some portion of its cases for attention and then showing how the rest of the cases relate to it. The procedure involves two steps (Ossorio, 1979/1981):

1. introduce a paradigm case, one that is clear-cut and recognizable by anyone who knows the concept;
2. introduce one or more transformations of the paradigm case.

The advantage of both a parametric analysis and a paradigm case formulation over a definition is that the latter cannot explicate different cases within a domain unless something like parameters and transformations are invoked.

### *Definition One*

As a point of origin, *technology* is defined as the production and use of an artifact for the improvement of a person's own circumstances.

The first characteristic, *production*, tells us that technology is not a natural but a human phenomenon. It has to be invented, adapted, conceived of, etc. Production can also include distribution, promotion, or authorization of a technology.

The second characteristic, *use*, suggests the purposeful nature of technology in the sense that a technology that is not used is a defective case.

That it consists of *artifacts* is to place technology in the social practices (SP) parameter of culture in a part/whole relationship between the physical implements used in a behavior and the behavior itself.

Characteristic number four, *improvement*, opens up the possibility that technology can go wrong by failing to improve someone's circumstances.

With the fifth characteristic, *a person's own circumstances*, it is pointed out that in the paradigm case all five characteristics are actualized in the same person. The fifth characteristic also allows us to generate cases where other persons and their circumstances are the reason a technology gets produced or used.

### *Paradigm Case Formulation 1*

From Definition One and its related discussion, we have the following Paradigm Case Formulation (PCF 1):

1. Paradigm Case: A person invents tool X and uses it to get work done faster.
2. Transformations:
  - T1. Separate the producer from the consumer:  
The person invents tool X but does not use it, or the person uses tool X but does not invent it.
  - T2. Introduce the status of entrepreneur:  
The person develops a market for tool X and distributes it to persons interested in getting their work done faster.

- T3. Separate the consumer from the beneficiary:  
The person uses tool X to get someone else's work done faster.
- T4. Introduce the possibility of the technology going wrong:  
Tool X breaks down, or  
Tool X injures someone, or  
Tool X does less well than expected.
- T5. Replicate the process in another context of use:  
A member of another community sees tool X and re-enacts T1-T4.  
A member of another community sees tool X as a way of getting things done not thought of before.

As will be made clear shortly, derivative cases encompassing the cross-cultural transfer of technology can be generated by reference mainly to the production and use patterns of a technology, i.e., T5 of PCF 1. For a complete understanding of the entire process, however, the remaining components of the Technology Transfer Model need to be described.

### The Technology Transfer Model

The components of the model for evaluating the transfer of technology across cultures are organized into three interrelated systems: (a) the Consumer system, (b) the Influence system, and (c) the State of Affairs system. Each of these systems has a place in the evaluation of the role technology transfer plays in bringing about culture change.

#### *The Consumer System*

The consumer system describes what kinds of consumers of technology are possible. In the paradigm case of technology a person uses a particular version to improve his or her own circumstances in some specific way. The ways in which technology can improve someone's circumstances typically fall into three empirical categories:

1. entertainment—where technology is used (a) to initiate or maintain a positive mood, or (b) terminate a negative one, e.g., watching television;
2. profit—where technology is used to acquire means of exchange (other than by selling the technology ) e.g., using telecommunications for obtaining market information;

3. convenience—where technology is used to make a social practice a more efficient way of meeting a need, e.g., hunting with a bow and arrow as an adjunct to running the animal down.

In the present model it is worth distinguishing among different kinds of consumption. *Primary consumption* is the use of a technology for one's own entertainment, profit, or convenience. Primary consumption is the paradigm case of technology use.

*Secondary consumption* is where technology is used for someone else's entertainment, profit, or convenience. This case of technology use is distinguished from the paradigm case by the logical necessity of another person or persons being involved. The relationship is built into the configuration of the technology itself. For example, if a teacher in a remote site takes an advanced course in cultural relations via satellite telecommunications, the students that will be taught better are conceptually part of the reason the technology exists. The teacher is a secondary consumer in this case, even though there may be an additional reason, such as a pay increase, for the decision to participate.

The third kind of technology use is called *tertiary consumption*. Tertiary consumption refers to the effects on a person of someone else's use of technology. There are logically two types of tertiary consumers: those affected by someone's primary consumption, and those affected by someone's secondary consumption to technology. An example of the former would be the only child on the block without a television set. Such a child would be restricted from participation in whichever social practices involve acting upon what happened in prime time the night before. The incident involving the injured Eskimo boy, related at the beginning of the paper, is an example of tertiary consumption stemming from primary consumption.

Tertiary consumption involving the secondary use of technology has already been illustrated in the education example above. A slightly different version of the concept is exemplified in virtually all the world's weapons of war. Ironically, the successful use of weapons technology is the only case I can think of where the tertiary consumer is intentionally less well off in the sense of paradigm characteristic number four, Improvement.

It is not always possible to place the use of a technology cleanly into one class or the other. Some situations may have features of all of them. The important thing is that the use of technology can, and usually does, represent a complex configuration of social relationships, personal characteristics, and coordinated activities, not all of which can be foreseen much less anticipated. The more that can be anticipated, however, the greater the chance that technology use of any kind will lead

to increased behavior potential rather than unanticipated ill effects. The next section describes the system of influences that control the technology of a given place.

### *The Influence System*

Underlying the description of the Influence system is the reminder that the form a technology takes is under the control of persons engaging in deliberate action. Thus we can view technology as a psychological process, accomplished by choice within the entire social system that calls for it, rather than by accident or act of superhuman agency outside the system of ordinary means by which persons meet their Basic Human Needs.

There are three components to the Influence system, each of which has two facets. The three components are: (a) the *Motivation* component, (b) the *Authority* component, and (c) the *Competence* component.

*Motivation.* The *Motivation* component of the influence system comprises all the reasons someone wants to influence a particular technology. These reasons fall generally into two main classes of motivation: (a) *Virtual*—reasons to influence a technology based on its virtues for improving the consumer's circumstances, and (b) *Fiscal*—reasons to influence a technology based on the benefits that derive from some aspect of the production of the technology.

Examples of virtual motivation are easily generated. Any technology that has ever been used for someone's entertainment, profit, or convenience, from the first arrow to the latest computer, could serve as an illustration.

Fiscal motivation, on the other hand, is exemplified in cases where the course of a technology is influenced for reasons other than what it was designed to do. The electronic engineer working in "Silicon Valley" is fiscally motivated who, in response to a request for bids issued by the Alaska Office of Telecommunications, designs a piece of electronic equipment to translate satellite TV signals beamed to an earth station in a remote Alaska village for the viewing pleasure of its citizens. The employee who wrote that request for bids was fiscally motivated to influence the technology of the remote village by an anticipated improvement in his annual performance rating. I am expressing my fiscal motivation to influence the village's technology, a technology I probably will never consume, by presenting the concept of fiscal motivation in this volume.

The purpose in making the distinction between virtual and fiscal motivation is so their relative influence over the social practices causing a culture's technology can be analyzed effectively. Two important questions arise in this regard. One is, how much of each kind of motivation is operating in a particular context? Another is, what conditions determine the degree to which one kind of motivation preempts the other, and what are the consequences? As will be seen in the next two sections, these kinds of questions recur in each part of the model.

Before moving on to the Authority component, however, it is worth pointing out that the two kinds of motivation discussed here correspond to distinct roles played by those who assert power over technology. Virtual motivation logically applies to consumers, specifically to primary and secondary consumers. When virtual motivation is the basis for action, achievement is impossible any time prior to the activation of the technology. Fiscal motivation applies to those occupying entrepreneurial roles, that is, in the design, production, or distribution of the technology. When fiscal motivation is the basis for action, achievement is possible at any time in the process of technological development. In other words, when one is analyzing the relative influence of virtual and fiscal motivation, one is also analyzing the relative operation of consumer and entrepreneurial interests in the matter. The timing of who gets paid when is central to the analysis. A related point is that what are normally accounted for as the costs of developing a technology can now be seen for what they are—forms of fiscal motivation for anyone to respond to who has the requisite status and personal characteristics outlined in the next two sections.

*Authority.* The *Authority* component of the Influence system refers to positions in a social structure persons can occupy to influence technology. As with the Motivation component, there are two kinds of authority a person can have: (a) *Formal* authority—the authority to influence technology associated with a particular social role, and (b) *Informal* authority—the authority to influence technology created through face-to-face interaction in a particular context.

Formal authority is the more easily exemplified of the two kinds. Legislators who appropriate funds to extend entertainment television to rural Alaska, boards of directors who authorize stock purchases in computer firms, Supreme Court justices who rule on the patenting of recombined genes, are straightforward examples of formal authority to influence technology.

Informal authority, on the other hand, is easier to describe than to exemplify. An analogy will help outline its features. Gearing et al. (1979)

made a useful observation to the effect that in any society the distribution of knowledge, skill, and talent is not random among its members. Rather, these powers are distributed throughout the social structure by the process of face-to-face interaction. Analogously, the implementation of a technology in any context is subject, at least in part, to how much utility and value is attributed to it through the same process—face-to-face interaction. In other words, informal authority exists to the extent that a technology's virtue is not entirely intrinsic but dependent also on socially negotiated judgements for its adoption and survival in a particular context of use.

If the concept of informal authority seems elusive, the reason may be that it is elusive. Because the concept has not been articulated does not mean that its influence is weak, however. The dropping of America's commitment to enter the supersonic transport development race was a response to informal authority, albeit exercised through formal authority systems. Shows of public resistance to the development of our domestic nuclear power industry are further indicators of the informal authority system. In fact, one index of the magnitude of the amount of informal authority over a technology is the amount of effort required to resist it. The advertising industry, for example, exists almost entirely in tribute to the informal authority of the populace to hold thumbs up or down regarding even the most virtuous of technological developments.

In any case, the process of innovation is complex and, as pointed out articulately by Katz (1973), it will not submit easily to analysis that ignores the role of informal elements. He notes that attempts to relate adoption of new items to attributes of the item, the social structure, the culture, etc., usually fall short conceptually, especially if they fail to consider the compatibility of the item with informal aspects of the entire context of its use.

*Competence.* The third component of the Influence system is the competence component. As with the other parts of the Influence system, the competence to influence technology has two forms: (a) *Technical competence*—what skills and knowledge are needed in order to actualize a technology in a particular context, and (b) *Cultural competence*—knowledge of the social practices resident in a context where the technology is to be used.

The requirement of technical competence is easy to understand; no technology can come into being without it. Technical competence refers to all aspects of a technology; not just to its design and production, but to its distribution and consumption as well. Because technical competence can range from high to low, so also can the quality of the

technology, and by extension, its capacity to improve someone's circumstances.

Cultural competence, understanding the social practices of a culture at risk to the transfer of a technology, is typically preempted or overlooked as a source of influence. Yet, cultural competence is what is needed to anticipate (a) the extent to which a technology fits into the social practices of a culture in a particular case, and (b) the extent to which it will improve its members' prospects for meeting their Basic Human Needs.

Anyone who watches television without being able to build a television set enacts the distinction between technical and cultural competence. The converse is true as well: Anyone whose invention has been put to an unforeseen use exemplifies the distinction. The inventor of chicken wire (now advertised as poultry mesh) probably did not anticipate that villagers in Southwestern Alaska would see in it an ideal material from which to make fish traps. Other examples of unforeseen uses of inventions, from trivial to monumental, could be presented. The point is that the probability of such a use taking place is limited by the degree to which technical and cultural competence are simultaneously at work in the same locale. Moreover, to the extent technical competence is segregated from and allowed to preempt cultural competence, there is a likelihood that the technology transferred to a given context will be misdesigned in some important way. The same holds true for situations where fiscal preempts virtual motivation, and where formal authority preempts informal authority.

The next part elaborates the concepts by which the parameters of the Influence system can be related to states of affairs their interactions produce.

### *The State of Affairs System*

If the process of innovation were without problems, if transferred technology never went wrong, if new social practices always led to more behavior potential for everyone, there would be little need to monitor the states of affairs the cross-cultural transfer of technology can bring about. What is needed is a way of describing states of affairs that is sensitive to the difference between innovations that go right and those that go wrong. For discursive purposes, the States of Affairs outlined here comprise an evaluation of technological innovation. There are direct applications, however, to evaluating any aspect of one culture (its World, Statuses, Choice Principles, etc., from Formula One) when transferred to another culture. What comes to mind is the delivery of



such things as educational, medical, or social services; economic and legal procedures; etc. For the current model, what holds true for technology developed in one cultural setting and used in another also holds true for *anything* developed in one cultural setting and used in another.

A great deal of attention is being paid, for example, to the use of Western models of psychotherapy and counselling in non-Western cultures (Draguns, 1973; Marsella & Pedersen, 1981; Marsella & White, 1984; Silva, 1983; Torres, 1983; Torrey, 1972.). Indigenous subsistence systems being replaced by Western corporate investment structures mandated under the 1971 Alaska Native Claims Settlement Act is another example.

The evaluation of a technology (or other innovation) in a new context can be accomplished by a slight variation on the theme of supply and demand. This abstraction works if a concept of demand is used that ties it to the idea of Basic Human Need, and a concept of supply is used that includes the use of technology to meet those needs.

The conceptual outline of the State of Affairs system is quite simple. It consists of only two intersecting dimensions representing the transfer of a technology in a new setting, on one axis, and the need for it in that setting, on the other. These elements are arranged in the four-fold matrix shown in Table 1. The cells of this matrix represent four distinguishable states of affairs: *Responsive*, *Wasteful*, *Deprived*, and *Stable*.

*Responsive States of Affairs.* Responsive states of affairs are those in which the demands for a technology in one cultural setting are met by its being transferred from another cultural setting. The "snowmobile revolution" in Arctic Scandinavia (Pelto, 1973) is a good example of a responsive state of affairs. In this instance, an old need was met by a new invention. Reindeer herding among the Sami predated the existence of snowmobiles by many generations, as did the need for continuously more convenient and profitable ways to herd the reindeer. When snowmobiles were invented and became available for transfer, they became an innovation.

This is not to say, however, that a responsive state of affairs is free of problems. For example, one effect of the use of snowmachines was to "de-domesticate" the herds:

In effect, the animals have been allowed to return to a near-wild stage. Relinquishing control over the animals represents the continuation of a trend that was already evident before the coming of the snowmobile. The use of snowmobiles pushed the

de-domestication process to its logical, and possibly irreversible limits. (Pelto, 1973, pp. 98-99)

There are other examples in Pelto's analysis that serve as reminders of the systematic interactions among the parts of a context of technology use. In the present model, culture change occurring in responsive states of affairs need not always be positive. Where problems arise, however, they arise logically in the area of Tertiary consumption associated with Primary consumption of the demanded technology.

Table 1  
Possible States of Affairs for the Supply of a New Technology  
Relative to its Demand in a New Culture

Supply of the Technology	Demand for the Technology	
	Demanded	Not Demanded
Supplied	RESPONSIVE	WASTEFUL
Not Supplied	DEPRIVED	STABLE

*Wasteful States of Affairs.* The next cell of the States of Affairs System comprises situations where technology is transferred without its having been demanded. At first glance, this state of affairs may seem merely hypothetical, especially on a scale of any important size. We may all have purchased some gadget or other that now gathers dust in a closet, or have given a toy to a child only to have it appear at our garage sale advertised as "never used—only thrown down once".

Ironically, it was the nagging underconsumption of telecommunications technology by rural Alaskans after it had been put in place at great cost that prompted the present conceptualization. How could that have happened? It is argued here that the magnitude of the waste is a joint function of (a) the amount of fiscal motivation made available to (b) persons with technical competence in excess of their cultural competence by (c) persons with formal authority ignorant of the informal authority indigenous to the context of use.

*Deprived States of Affairs.* With appropriate modifications, the above argument holds for the next cell of the matrix, the deprived state of affairs. In this state of affairs, there is a need that could be met by some existing technology, but that technology is not supplied. Many of the differences between Third-World and Western nations could be thought of as deprived states of affairs. When, for example, Western medical technology exists but, for all the reasons implied in the Influence system, does not get transferred to cultures that would benefit from it, those cultures are in a deprived state of affairs.

There is, of course, an *ex post facto* character to deprived states of affairs insofar as they can only occur after a technology gets invented; only then could a gap occur. All that is really being described, however, is a conceptual part of the uneven distribution of Basic Human Need satisfaction susceptible to the possible transfer of technology across culture boundaries. The significance of this condition is that a deprived state of affairs logically includes reason enough to do something about it. What gets done about it is under control of the Influence parameters described earlier.

*Stable States of Affairs.* The fourth state of affairs in the model exists when there is little demand for new technology and little external pressure to adopt it. This is termed the stable state of affairs in the present conceptualization, implying a high level of Basic Human Need satisfaction within the target culture so that little reason exists to change its basic character, introduce new social practices, or generally put a high value on innovation.

How stable any context ought to be cannot be decided in advance. Postman (1979) has gone so far as to suggest that a culture can "OD on stability", by being too rigid to respond to changes in circumstances. As will be discussed in the next section, the argument rests on something more than the issue of flexibility versus rigidity. Rather, the metric for gauging the rate of change consists of an appraisal of how members of the described culture are better or worse off. To the extent this can be done in advance of the technology transfer, everyone, save the fiscally motivated, is better off. The point of introducing the concept here is to remind us that stability is a possible state of affairs, possibly a desirable one, and one that could possibly go wrong relative to whatever standards we have for making that kind of observation.

### The Development of Social Policy

The four possible states of affairs just described provide formal criteria for evaluating the course of culture change wrought by particular

instances of technology transfer. How technology transfer causes culture change is, however, only one issue within the context of the larger problem of how to keep technology transfer, and, equivalently, culture change from going wrong. The issue, then, is one of social policy and how best to develop it. To pursue this issue further, there are several observations about technology and culture change worth discussing.

First, the relationship between technology transfer and culture change is a special case of the relationship between technology and culture. Both relationships are part/whole relationships in that no technology, transferred or otherwise, exists conceptually apart from the set of social practices in which it has a place. Transferred technologies are not different from new technologies inasmuch as the social practices in which they have a place are necessarily changed by their introduction. In short, that changes will occur, and that the changes will be in a culture's social practices is a logical part of the concept of technology.

Second, it may seem too obvious to need pointing out, but culture change is a universal state of affairs with no exceptions. This is not an empirical statement but a conceptual one. A static model of culture, even for the purpose of describing how a culture has changed, is a researcher's convenience. The anecdote about Gigli's *portamento* related at the beginning of this paper is a reminder of how fine-grained the description of culture change can be. Apropos the paper's main theme, it is only through the prior introduction of a new technology, analog sound recording in this case, that it is now possible for an observer, not even alive at the time of the original recording, to detect such a change in our culture without the necessity of historically continuous face-to-face observation.

Third, there is the question of authenticity of culture expressions (Orvik & Towarak, 1982). How do we really know that this artifact, symbol, song, etc., came from culture X? One answer is that a member of culture X produced it; it passed a blood test, so to speak. This question is related to the one raised by the legal challenge to Mrs. Katelnikoff's right to sell the artifacts she creates as authentic expressions of her culture. There is a larger question involved, however, whether authenticity resides in the object or in the authentication process. Ossorio (1978) used an example that may shed some light on the matter. We can give it the provisional title: "The picture of Uncle Joe". In this example we are asked to imagine seeing a photograph of Uncle Joe and trying to decide if it is, indeed, of Uncle Joe, or someone who just happens to look very much like him. Then we are asked to draw a picture of Uncle Joe, or whoever our "Uncle Joe" is, and try to decide the same thing, is it or isn't it? Only in the second case can there be no question, despite the fact that the resemblance of Uncle Joe is apt

to be greater in the first case. So in answer to where does authenticity reside, we can see that it is a process of social negotiation that includes an appeal to the eligibility of the producer, and only secondarily an appraisal of the resemblance of the object to a formal standard. As a side note, consider what gives a case of counterfeit its significance. The eligibility of the producer obviously takes precedence over the quality of the product.

The fourth observation is that culture change does not require culture contact in order to happen. Culture contact mainly influences the values the various culture change parameters are likely to assume, but those values can come from inside as well as from outside the culture's membership. One of the distinctive features of culture as a form of human organization is that it comprises everything needed for its members to be reared to full-fledged adults capable of meeting their Basic Human Needs (Ossorio, 1981/1983).

That cultures change at different rates relative to one another and at different times in their history is a fact that depends on what one uses as a metric, which brings us to the fifth observation. There is no metric for gauging the rate of a culture's change independent of its effect on the behavior potential of its membership. Neither rigidity nor rapidity of culture change needs avoiding per se. Culture change can be too fast or too slow depending on whose circumstances are worse or improved, and in what way those states of affairs come about. To paraphrase a Descriptive Psychology Maxim: Culture change goes right unless it goes wrong in one of the ways it can go wrong (Ossorio, 1982).

In the case of the injured Eskimo boy, it is tempting, indeed it has been frequent for critics to conclude that he was a victim of rapid culture change. Bodley, in his introduction of *Victims of Progress* (1982) expresses this point of view:

Industrial civilization is now completing its destruction of technologically simple tribal cultures. According to the viewpoint of many authorities within industrial civilization, this disappearance or drastic modification of these cultures is considered necessary for the "progress" of civilization and is thought to be inevitable, natural, and, in the long run, beneficial for the peoples involved. (p. iv)

The absence of an intrinsic metric for gauging the rate of culture change, other than its effect on behavior potential, is an opportunity to develop new forms of appraisal, social negotiation, and control by persons over the effects of impending technology transfer. Policies reflecting Bodley's paternal preservationism as well as the exploitationism of the civilized industrialists he describes could, if implemented, be successful only by accident. The evaluation of an

success of psychotherapy in that the results, good or ill, ultimately reside among those whose well-being is at stake. Judgement and sensitivity rendered in the context of those whose behavior potential is at risk are not incompatible with the development of effective social policy (see the "precaution paradigm" developed by Ossorio, 1980/1981, pp. 111-116).

The final observation is that the development of social policy about the cross-cultural transfer of technology is itself a social practice. As a social practice it necessarily includes references to what is wanted, what knowledge is involved, what competence is required, what persons are eligible and/or obligated to participate, etc. Descriptive Psychology, because it is primarily concerned with formal access to these and other related facts, is in a strong position to make systematic sense of large-scale social processes. The resulting systematic description can be used as a rational basis for social policy.

As shown in the case of technology transfer and culture change, social policy must necessarily identify what is at risk and act accordingly. At the most general and abstract level, what is at risk is the behavior potential of persons. What the above model has done is apply the concepts of Descriptive Psychology systematically to the entire range of facts the process of technology transfer entails. By redescribing the policy issue as one of lost and gained behavior potential, social policy can do what it is supposed to do, make persons better off or keep them from becoming worse off.

Threaded throughout the development of the Technology Transfer Model are opportunities for developing policies to keep the process from going wrong in some of the ways it could go wrong made obvious by the model. For example, the technology could be wasteful if there is fiscal motivation in excess of virtual motivation to transfer it. A culture could be deprived of really useful technology if the formal authority system is out of touch with the informal authority system. The eligibility to make decisions is a status assigned through social practices. When technical competence is divorced from cultural competence, there could be an increased likelihood that innovative uses of various technologies would be overlooked.

The power of Descriptive Psychology is in its systematic efficiency for lining up the relevant facts of a matter and making obvious their significance to the persons involved. In the matter of cross-cultural transfers of technology, the scale of significance is increased in size and complexity, and the focus of significance shifts from individual persons to persons in culture. The goals of description are similar, however, despite the differences in scale and focus, namely to find alternative ways of behaving and to establish a set of principles for choosing among them. Where the scale is large, so is the significance of choices to the

them. Where the scale is large, so is the significance of choices to the members of a culture most often left without influence in the process, but whose behavior potential is always at risk.

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# ARTIFICIAL PERSONS

Anthony O. Putman

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## ABSTRACT

An alternative approach to the enterprise of artificial intelligence (AI) is presented. The paper divides naturally into four semi-autonomous sections. The first attempts to delineate the subject matter of AI; it offers specifications for what would qualify as an "artificial person". The second section explores some of the statuses within our work communities that an artificial person might appropriately fill. The third section, "An Epistemology for Artificial Persons", takes up issues of real-world knowledge and logic; building on Ossorio's foundations it suggests a fundamental logical form that is intended in the future to form the basis for a general-purpose AI language. The last section, "Some Algorithms of Common Sense", offers some technically detailed means of handling real-world inference.

Descriptive Psychology since its inception in the early 1960s has intended to make substantive contributions to the enterprise popularly known as "artificial intelligence", or "AI" to its familiars. Peter Ossorio from the first insisted on the distinction between "person"—one whose

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history is paradigmatically that of deliberate action—and "human" (Ossorio, 1966), which he later formalized in the concept of "emhodiment" (Ossorio, 1980/1982). His early work for the Air Force (Ossorio, 1964) led to computer-based "intelligence" that is still unsurpassed in the field; his seminal book *"What Actually Happens"* (Ossorio, 1971/1978) was written with at least one eye constantly on issues of computer implementation. A number of theses and dissertations by Ossorio's students dealt with issues of simulating human judgement (e.g., Mitchell, 1967; Putman, 1969), representing complex knowledge in computer-implementable form (e.g., Damon Tempey's work, published as part of Ossorio, 1971) or rigorously formalizing complex processes so that computer programs might use them (e.g., Busch, 1974; Jeffrey & Putman, 1983). The last ten years has seen a steady progression of concepts (Jeffrey, 1981; Putman and Jeffrey, 1985), formalisms (Putman, 1982) and functioning artificially intelligent programs. Looking at the historical record, one can see that, had all this activity taken place within the context of an academic computing science department, the Descriptive Psychology approach might be widely acknowledged as among the three or four primary schools of AI in the country.

This is not the case, of course; the Descriptive Psychology approach and its many contributions remain virtually unknown outside the Descriptive Psychology community. One reason for this state of affairs is the lack of a thorough-going explication of what the enterprise of AI looks like from the Descriptive Psychology viewpoint; lacking that, newcomers to this viewpoint have little basis for assessing the actual and potential contributions Descriptive Psychology can make. The current paper intends to be a step toward filling this deficit. This paper is not an overview or review of previously published or accomplished work; it presents essentially new material which builds on and links to the previously published works. It intends to provide a framework within which both past and future Descriptive Psychology work in AI can be seen and understood for what it is.

This paper addresses some fundamental questions: "What is AI? Why should we pursue it? How can it be done?" It divides naturally into four semi-autonomous sections. The first attempts to delineate the subject matter of AI; it offers specifications for what would qualify as an "artificial person". The second section explores some of the statuses within our work communities that an artificial person might appropriately fill. The third section, "An Epistemology for Artificial Persons", takes up issues of real-world knowledge and logic; building on Ossorio's foundations it suggests a fundamental logical form that is intended in the future to form the basis for a general-purpose AI

language. The last section, "Some Algorithms of Common Sense", offers some technically detailed means of handling real-world inference.

## SPECIFICATIONS FOR AN ARTIFICIAL PERSON

The link between the enterprise of "artificial intelligence" and the concept of a "person" is an interesting one. It seems clear that, since its inception, AI has typically defined its domain by various kinds of reference to persons and certain of their abilities. Exactly which abilities to include in the purview (and why exactly these and not some others) has been substantially less clear. As a result, the working AI community's "definition" of AI has traditionally been a moving target (Kurzweil, 1985), which today consists essentially of a relatively short list of discrete areas of research interest.

I would like to propose a somewhat fresh look at this link, and thereby at the question "What comprises the domain of AI?" The somewhat fresh aspect stems from the perspective brought to bear on the issue. My professional training is as a psychologist and mathematician. I have spent over twenty years practicing my craft as a Descriptive Psychologist (see Ossorio, 1971, Ossorio, 1971/1978; Davis, 1981; Davis and Bergner, 1983; Davis and Mitchell, 1982, 1985). I have been a professional computer programmer in various stints since 1967, and have been working for the past ten years primarily as an architect of languages and applications in AI (Jeffrey & Putman, 1983; Putman & Jeffrey, 1985). The perspective of Descriptive Psychology is the foundation of the remarks in this paper.

Consider the following assertion: the enterprise of Artificial Intelligence consists of attempting to duplicate, within the hardware/software configuration of a computer system, *all* of the characteristics of a human person, excepting solely those characteristics inextricably dependent on flesh-and-blood embodiment. To be less precise and more clear: AI is the enterprise of creating an artificial person. (By "artificial" I do not mean to imply "not real"; the term is used in its original and primary sense, "produced by human art".)

A few preliminary comments on this assertion: like any intellectual enterprise, AI at any given time will focus its attention on certain of these characteristics and ignore the rest—some questions are more interesting than others. Certain, perhaps many, person characteristics will at any given time be seen as trivial or irrelevant to "real AI"; further, we can predict with certainty that the class of "interesting" or "relevant" issues will continue to change with time. And deciding which characteristics of a person are "inextricably dependent on flesh-and-blood embodiment" will certainly generate some amount of

controversy. This is all as it should be. Nonetheless, it seems useful to define the domain of AI in some way other than as a discrete list of current topics; after all, do we know of any other field in which, as soon as we know how to do something, it ceases to be part of the domain?

The primary purpose of specifying the domain of AI is to suggest a "scope of effort" for the field, and thereby suggest standards of adequacy for our theories and artifacts. To fulfill this purpose requires a substantially more detailed elaboration of the above "definition". The remainder of this section is devoted to a first step in that elaboration, which is meant to serve, as the title asserts, as specifications for an artificial person. To avoid overburdening an initial effort, most of the specifications are offered with little further elaboration; I have chosen simply to list the specifications and bunch elaborations together in a numbered schema at the end. Thus, for example, 1.1 is the first elaboration of the specification numbered 1, and so on.

Certain of the terms used in these specifications form a part of the technical vocabulary of Descriptive Psychology; that is, they are conceptually articulated as part of that discipline's body of work. In most cases, the reader will not be misled by assuming the ordinary English language understanding of a term. For the purposes of technical implementation, however, we require a considerably more precise articulation of these terms and their relations to each other, which Descriptive Psychology provides; that precise articulation has formed the basis for numerous working AI artifacts, including several expert systems (of size equivalent to 2700 production rules) and several systems (e.g., thyroid diagnosis, content-based document retrieval) based on judgement simulation which perform very favorably compared to other, related work. Interested readers are referred to, in particular, Ossorio (1971/1978), Ossorio (1980/1981), Putman & Jeffrey (1985), and Jeffrey & Putman (1983).

### Specifications

An artificial person:

1. Has places (statuses) in communities.
2. Has motivations; can and will engage in purposive action to accomplish stated and/or desirable ends. These motivations are consonant with status and community.
3. Chooses from among available courses of action in accord with choice principles of its community.
4. Knows:
  - a. its own status.
  - b. what state of affairs it is attempting to bring about.

- c. why it is attempting to bring about that state of affairs.
  - d. the significance of the behavior it is currently engaging in.
  - e. the social practice structure of the behavior it is engaging in.
  - f. what would count as success at its current behavior.
  - g. the important ways in which this behavior can go wrong, and what to do about it.
  - h. what its behavioral options are and what it needs to know to choose among them.
  - i. the current state of affairs relevant to its current actions.
  - j. the status of anyone with whom it interacts.
  - k. how to deal appropriately with someone in that status.
  - l. what actions it has taken in the past, what practices it has engaged in and with whom, and the results of these.
  - m. what incomplete courses of action, if any, remain from previous interactions.
  - n. what objects, processes, events and states of affairs are known to this community.
5. Knows how to:
- a. engage in all performances for which it is eligible.
  - b. find any information it needs in order to act.
  - c. recognize particular instances of the objects, processes, events and states of affairs known to this community.
  - d. appraise behavior—including its own—in the light of community standards, and adjust its own behavior accordingly.
  - e. construct and engage in a course of action to accomplish a stated goal.
  - f. appraise and adjust its own knowledge.
6. Knows the language, concepts and locutions used in this community. Responds appropriately to verbal and written conversation in the language of the community, including questions, requests, and demands. Communicates in the language of the community.

### Elaborations

Terms used in the above specifications that form part of the technical vocabulary of Descriptive Psychology include: status, community, motivation, action, course of action, choice principles, object, process, event, state of affairs, significance, social practice, performance, eligible, appraise, knowledge, know, know how, language, concept, locution.

1.1 A key insight of behavioral science is that all behavior occurs in the context of a specific community. We understand a given behavior by

reference to that community and its standards. Every person—human or artificial—is a member of multiple communities and has a specific place (status) in each. A person's status in a given community connects to the permissions and restrictions on action within the community. Thus, to know what to do and how to do it, we must know what the person's status is within which community.

2.1 A person acts only when an opportunity is perceived to bring about a desired or valued state of affairs. But no state of affairs can be taken as *per se* desirable; it is adjudged desirable in the light of circumstances when viewed from the perspective of a particular status within a given community. Thus, what an artificial person is motivated to do depends on what status it is occupying in which community, and what its circumstances are.

2.1.1 For example, consider the state of affairs described by "Our organization spent five million dollars last year in excess of revenues". The financial VP of a publicly-traded corporation would perceive that state of affairs as highly undesirable, and would go to great lengths to avoid it. The marketing director of a start-up consumer products firm, charged with building brand recognition and market share, might well see this state of affairs as desirable and be motivated to pursue it. Status, community and circumstance combine to yield diametrically opposing motivations.

3.1 At any given time, a person must choose what to do from the various available courses of action. By "available", I mean simply that doing this particular thing would be in some way appropriate to the current situation. How appropriate a given course of action is—and in what way it is appropriate—depends on what Ossorio calls the "choice principles" of the community. (Ossorio, 1981/1983). A course of action can be preferred on at least the following grounds: (a) it best promotes one's self-interest; (b) it maximizes one's pleasure or decreases one's discomfort; (c) it is appropriate in the social or aesthetic sense; (d) it is the ethically right thing to do. Different statuses in different communities appropriately weigh these grounds differently when choosing behavior. An advertising marketing executive in the entertainment industry, for example, is expected to feel somewhat less constrained by the literally provable truth than is, for example, a bank's outside auditor. An artificial person acting in either role will fail if it fails to appreciate the difference such choice principles make.

3.2 Most AI theories and artifacts have a palpable bias in favor of the scientific version of the aesthetic choice standard: Choose the course of action which is logically fitting to the situation. Disputes about how to choose have been largely parochial—which procedures or algorithms best select the most fitting conclusion. This bias mirrors the traditional

severely limited view of "intelligence" in the field of psychology (a view which, not coincidentally, has in recent years been substantially and effectively challenged; see especially Gardner, 1983 and Sternberg, 1985). So long as we build artificial persons with only severely limited agency, we can get away with this bias. But as we move increasingly toward building artificial persons whose agency can be compared to a human's, we will have to conform to more stringent standards. Consider this one: an artificial person must be able to choose behavior responsibly and appropriately in situations in which humans would have conflicting grounds for choosing, and must be able to demonstrate understanding of the conflict. The representation and utilization of choice principles seem necessary to adhere to this standard. The long tradition within philosophy and psychology of posing "moral dilemmas" can serve as a beginning reference point for constructing such conflictual test cases.

4d.1 One key aspect of the formal representation of behavior is its hierarchical structure. Regarding any behavior, it is both formally and procedurally sensible to ask either of two questions: "How do you do that?" and "What are you doing by doing that?" The first question leads to procedural elaboration as required; the second leads to elaboration of the broader pattern of which this action is a part. The latter is referred to within Descriptive Psychology as the Significance of the behavior. It is particularly important in understanding the meaning of a given behavior, and constructing means/ends explanations.

4e.1 Individual behaviors do not occur in isolation. They are part of some patterned sequence of behavior, typically involving more than one actor, in which one action can be seen as a response to prior actions in the sequence and as laying the groundwork for subsequent actions. This patterning of actions is referred to by the concept of social practices. The elaboration and description of social practices plays a major role in the creation of artificial persons (see Jeffrey & Putman, 1983; see also Schank & Abelson, 1977 and other AI practitioners whose concept of "scripts" closely parallels this).

4n.1 Any attempt to create an artificial person must quickly come to grips with the need to represent real-world phenomena. Most typically, that requirement has been translated into the need to represent objects of various sorts, as witness the well-known Stanford-derived KEE system. Ossorio (1971/1978) makes a cogent argument to the effect that the representation of real-world phenomena requires formal recourse to four major units, namely: object, process, event, and state of affairs. More importantly, he provided a detailed articulation of representational schema for each of these, along with "transition rules" explicitly stating the formal and conceptual relations among them. These have formed the basis for several AI artifacts, at least one language, and a procedural

paradigm for software development. (Jeffrey & Putman, 1983; Ossorio, 1964; Putman, 1982; Putman & Jeffrey, 1985).

5c.1 The distinction drawn in these specifications between "know" and "know how"—knowledge and skill, if you prefer—parallels the AI tasks of representation and recognition. As machine vision practitioners have attested for years, it is one thing to represent an object in all its attributes, and quite another thing to be able to recognize an instance of that object when you see one. The two domains, and tasks, are certainly not independent of each other, but neither are they interchangeable.

5e.1 We have struggled for at least decades to pin down exactly what distinguishes a person from a clever mechanism. Turing's famous test defined the battleground, if you will, but by no means settled the issue; over time we have become more and more clever at catching the machine acting mechanical. I suspect that the crux of this matter for most of us lies in the person's ability to surprise us by acting in ways that are unexpected but still appropriate. Even intimate knowledge of an artificial person's programming should not enable us to predict with certainty what it will do, but mere randomness is just a trick; what we need is unpredictability in the service of effective action. What we can say with certainty is that persons can string together sometimes remarkably long and complex chains of action and interaction to accomplish their desired goals; further, they can make these chains up as they go along. An artificial person needs the same ability, and will surprise us at times by its appropriate use of it.

5f.1 Human knowledge is at best a tentative thing. What we know, and what we make of what we know, changes in the light of our own experience, and we do not require outside intervention to reprogram us. Neither should an artificial person.

6.1 Language has, appropriately I think, occupied a special place in the concerns of the AI community. Until very recently, many would argue that the human linguistic ability was our uniquely distinctive characteristic. As we learn that other species (certain cetaceans and primates, for example) seem to have some linguistic ability, our esteem for language has not gone down; rather, our esteem for those species has gone up. Peter Ossorio has made valuable and distinctive contributions to our knowledge of linguistic behavior; I believe his work in this area is of substantial interest to the AI community. Interested readers are referred especially to Ossorio (1964, 1969/1978) and Mitchell (1981).



## JOB DESCRIPTIONS FOR ARTIFICIAL PERSONS

The specifications outlined in the first section of this paper were meant to address substantively the question "What is AI?" In this section we turn our attention to "why" questions, and attempt some answers to them.

What, after all, is the point of AI? Why are so many people spending so much time and effort trying to create artificial persons of various sorts? We in the AI community rarely asks ourselves these questions because the answers are self-evident to us. Like chess, if you play, you don't need to ask why; if you don't play, you wouldn't appreciate the answer anyway. The aesthetic satisfaction of AI work is complete in itself.

But in addition to the aesthetic, the enterprise of AI has its pragmatic concerns. Granted that artificial persons are fascinating and intellectually stimulating—what good are they? Where are they going to make a useful difference in the lives of humans? I submit that the relative lack of conceptual work on these pragmatic questions has to date been AI's main self-limiting weakness. We have not built many really useful artificial persons in part simply because we have had scant guidance regarding what would be useful to build.

One reason for this lack is the name of our enterprise itself. We are out to create artificial *intelligence*, after all, and everyone knows that intelligence per se is a good and valuable thing. You don't ask the owners of a gold mine what they intend to *do* with all that gold; they just mine the gold, and leave it to others to decide how to use it. Accordingly, much of AI's most "pragmatic" work has consisted of creating systems for building "experts", and assuming that others will decide how to use them.

Unfortunately, this point of view reflects the rather radically academic worldview of AI practitioners in general. As corporate personnel officers can attest, intelligence per se does not get many jobs done. What is needed is intelligence finely focused on the pragmatic concerns of specific tasks. We don't need someone who can prove esoteric theorems; we need someone who can keep an eye on accounts receivable and let the right people know when some accounts show trouble signs. In general, we don't need experts, either; what we do need are people—artificial or otherwise—who know how to support us in our enterprises by accomplishing some important, complex but often pretty mundane jobs. This section intends to offer some substantive help with these concerns by delineating several broad categories of artificial persons. Each category is "expert" in the sense of knowing substantially and in detail about some area of endeavor, but that is almost beside the point; the categories are defined not in terms of what or how much they

know, but rather in terms of in what specific ways they fit into the existing work communities. In short, they are defined in terms of a brief "job description".

### Guide

Guides help people with "the ropes to know and the ropes to skip", as the title of one business self-help book put it. Whenever we move into a field outside our own area of expertise, or into a new organizational environment, we are confronted with our ignorance of the vast body of implicit knowledge about how things work around here. A guide helps us navigate through these unfamiliar waters. The issues a guide can help on can range from fundamental and basic ("What is expected of someone in my position?" "Does one ever bypass the chain of command here, and if so, when and how?" "How is this particular analysis actually done?") to the nitty-gritty detail ("Where is the copier and who gets to use it?" "What am I supposed to do with my copy of Form P88M?" "I just got error message 1022; what does that mean?").

Regardless of the focus, however, good guides have certain common characteristics: (a) They in fact know what they are talking about; (b) They are easily available to us when we need them; (c) They are willing to share their knowledge with no further end in mind other than contributing to our success; (d) They do not make us feel stupid, inadequate or beholden for asking for help. Looking over these characteristics, it is not surprising that good guides are more often read about than encountered. Guide is an obvious and useful role for an artificial person; Joe Jeffrey built one that worked quite well at Bell Labs (Jeffrey & Putman, 1983).

### Coach

I can make an excellent souffle if I have someone to talk me through the steps. Without such coaching, my souffles turn out remarkably like scrambled eggs. Most managers can do a good job of performance review with a little coaching; without coaching, they do what they can—and that's usually not very good. In virtually every endeavor, saving only those in which one is both proficient and recently practiced, coaching is needed to ensure good performance. And saving only those activities that require a flesh-and-blood body to demonstrate, artificial persons make excellent coaches. Talking one through the steps involved in doing something, digging into detail on a particularly tricky part, stopping to give "the big picture" or to clarify a term, helping to troubleshoot when one has gone wrong, a good coach gives one the confidence to succeed at endeavors one would otherwise not undertake or else perform poorly.

A coach (a) knows all the ways to succeed at this endeavor, (b) knows how to explain the relevant steps to people ranging from raw rookies to rusty experts, (c) focuses solely on giving you what you need to succeed. Clearly, there is overlap between the roles of guide and coach. The crucial difference lies not in expertise but in the form of interaction. You expect a guide to tell you about something and leave its application up to you; you expect a coach to be actually involved in your doing of the thing, talking you through it and offering tips from the sidelines. Artificial coaches in the areas of people management, marketing, and performance review have been built by the author in recent years.

### Friday

Robinson Crusoe had his "Man Friday"; Mike Hammer had his "Girl Friday"; I suspect what most of us want from AI is a "Thing Friday"—an artificial person who can get things done for us. A "Friday" knows how to do all those little things we would rather not bother with ourselves—look things up, keep track of things, do the picky little calculations and make sure all the forms are filled out, remember to notify everybody about the meeting or the decision, make the reservations and remind us to pay the phone bill. The list of things we want a Friday to do is limitless, because a Friday is nothing more or less than a tireless and faithful assistant. It takes care of the scutwork and the details so we can get on with our jobs.

Being embodied in a software/hardware configuration, a Friday is particularly well suited for handling tasks involving data and records. For example, one recent project built a Friday to handle loan documentation for a bank. The Friday interviews loan clerks (via flexible forms and ordinary questions) about a particular loan, and then creates and prints all necessary documents required to secure the bank's claim on the collateral. This is an important task. Doing it properly can save a large bank literally millions of dollars annually, but doing it properly takes both a great deal of specific knowledge and a lot of time. This is an ideal task for a Friday. The loan documentation Friday knows what information is required to document which sorts of loans, so it can ask for just that information without asking for extraneous items. It is expert in the classic "expert system" sense as well, because it knows the law regarding what forms to file and with whom to secure a given type of collateral. And it knows how to draw up, print, and address the needed documents, taking over a massive clerical task and doing it right. The fact that it knows all these things is almost beside the point; the purpose of a Friday is to *do*, not just to know.

### Analyst

Sometimes, however, what is really wanted is just an answer to our questions. "What are the Russians up to in the Baltic?" "Are we likely to find oil in this location?" "Which components should be put together for this customer's computer system?" "What disease does this patient have, and what is the best treatment?" "What are our best options for financing this acquisition?" These are a few of the questions addressed by currently operational expert systems. What they have in common is the role assigned to the artificial person—the role of analyst, responsible for thoroughly examining some particular state of affairs and making useful sense of it.

The standards of adequacy for an artificial analyst seem to be the same as for their human counterparts. The analyst is expected to take a thorough, meticulous look at all the relevant facts, to reason and extrapolate from those facts in a rigorous and defensible manner, to present its conclusions along with any important reservations in a clear and easily understood report, and to be ready to present facts and reasoning in support of its conclusions as required. Note that the analyst role explicitly assumes that the decision maker needs or wants no further help once the report is finished. If this is not the case, then some other role, such as Coach or Friday, is probably more appropriate than Analyst in designing the artificial person.

### Librarian

Some of the original AI work done within Descriptive Psychology involved the creation of an artificial librarian (Ossorio, 1964). Virtually all enterprises these days generate and utilize more documents than can be kept track of by any human. As Ossorio realized some twenty years ago, what is needed is an artificial person who (a) knows the substance of every document in the library, (b) knows what an individual means by a particular request for information, and (c) can steer individuals to just those documents most relevant to their requests. To date, no one appears to have improved upon Ossorio's analysis or his basic "J-space" methods; indeed, most computerized databases use some combination of keywords and menus, which require substantial adaptation by the user to the conventions of the library, rather than vice-versa.

These "job descriptions" for artificial persons, while encapsulating a great deal of analysis and practical experience, are certainly not meant to be exhaustive. They are intended to help expand our conceptions of the roles artificial persons can play, while offering some useful initial

categories to their designers. Part of the fascination of AI lies in watching entirely new roles being conceived and filled.

"What" and "why" having been addressed, let us now turn our attention to the question most dear to the true engineer's heart—"how?" The final two sections of this paper deal with "how" questions, beginning with the fundamental "how" of AI—how do we represent knowledge and knowing?

## AN EPISTEMOLOGY FOR ARTIFICIAL PERSONS

"What is knowledge and knowing?" Philosophy 101 students for generations have encountered this question and have learned that answers to it comprise the field of epistemology . . . which hard-nosed engineering students for generations have placed among the three or four most useless fields of human endeavor. Hard-nosed variants of the question, however, come up when one takes seriously the task of creating an artificial person, namely: "How can we represent what there is to know? How can we know that something is actually the case, rather than merely something that is possible?" Perhaps it is stretching things a bit to call these epistemological questions; after all, for the engineer the "how" in those questions carries almost all the weight and interest. Nonetheless, they point to two critical domains within AI to which Descriptive Psychology can make very substantial contributions: knowledge representation, and forms of logic.

Ossorio virtually single-handedly laid the groundwork for the domain of knowledge representation in his book *What Actually Happens* (1971/1978), which not coincidentally is subtitled "The representation of real-world phenomena". His conceptual and technical elaborations of the basic reality constructs—object, process, event, state of affairs—form the basis of a complete technology for knowledge representation. (This should not be taken, however, as downplaying the very substantial work required to instantiate Ossorio's basic formats in computer-useful form.) Rather than reiterating that body of work, this paper assumes it as given and builds from it.

The second domain—forms of logic—is so fundamental that it can initially be difficult to see what one is getting at in talking about it. It addresses a concern that among flesh and blood persons is rarely discussed except by academic philosophers, but which is a down-and-dirty practical issue when trying to construct artificial persons. In a nutshell, the issue is: How can we represent facts about the world so that the logic of the relations among the facts—including importantly those facts which form the context for these facts—is also represented? To represent the fact that Roger Clemens pitched a one-hitter last night is

one thing; it is quite another thing to represent that fact in such a way that we can also conclude that the Red Sox thereby clinched the pennant because the Yankees lost to the Tigers, and Clemens virtually assured his selection for the Cy Young award. Knowledge representation concerns itself with the adequate representation of facts; forms of logic concerns itself with what and how we can conclude from these facts.

AI in the past decade has begun to probe deeply into questions of logical form. The classic, sturdy "if-then" logical form, often expanded into "if-then-else" for completeness, has been widely used in actual applications. It has done very well for many applications, not so well for others; the limitations and critiques of this form are well known in the field. The "tree" structure instantiated in the PROLOG (PROgramming in LOGic) language was one step into further complexity. The past decade has seen an outpouring of theoretical work (and in some cases laboratory implementation) on such topics as default reasoning (e.g., Reiter, 1980; Glymour & Thomason, 1984), circumscription (e.g., Grosz, 1984), "common-sense" reasoning (e.g., McCarthy, 1986) and various approaches to non-monotonic logic (AAAI, 1984). Indeed, it is not overstating the case to say that virtually every LISP program written in AI labs in the 1980s either formally or informally created its own specialized "form of logic"; this is one of the language's more powerful and, its critics say, dangerous features in use.

The purpose of this section is not to critique these forms of logic. It is to offer an alternative formulation which has certain advantages: (a) It is complete, in that any logical relationship among facts can be represented without distortion within it; (b) It is powerful, in that surprisingly complex deductions and lines of inquiry can be derived from establishing surprisingly few facts; (c) It is intuitively clear, in that it is derived from a fundamental logic used by ordinary people in carrying out their day-to-day affairs.

Descriptive Psychologists will recognize this as simply paradigm case logic (Ossorio, 1980/1981) made technically explicit. Others have made similar points in rather different terms (Doyle's maintenance system and the general thrust of Hayes's ideas (Hayes, 1985) seem like reasonably close cousins); nonetheless, the conceptual connections to the rest of Descriptive Psychology imbedded in this formulation seem reason enough to offer it as, if not wholly "new", at least not outmoded and potentially quite useful. It is meant to guide the artificial person in its understanding of the world in which it finds itself; as such, it should most likely form the basis for an as-yet unspecified programming language for AI.

**Fundamental Logical Form for Representing Knowledge  
About the Real World:**

SA1 unless SA2 in which case SA21 or SA22 or . . . SA2n.  
unless SA3 in which case SA31 or . . . SA3m

...

unless SAi in which case SAi1 or . . . SAij.

where SA = state of affairs.

Unpacking that somewhat into English, it says: state of affairs SA1 is taken to be the case unless some other state of affairs (SA2, SA3, . . . SAi), which indicates otherwise, is known to be the case, in which case some other state of affairs (SA21 . . . SA2n) is taken to be the case. SA1 is the paradigm case.

One distinctive feature of this form is that a certain state of affairs (in this case, SA1) is taken to be the case unless we know something which indicates otherwise. This embodies paradigm case logic, and is a very powerful means of representing the "contextual" knowledge which makes real-world action possible. Humans often need to know very little about the specific situation at hand before complex actions and conclusions are warranted; this logical form makes available to artificial persons the same kind of scope and power.

Obviously, the concept of "state of affairs" is central to this logic. Ossorio details at great length the conceptual connections which articulate this concept (Ossorio, 1971/1978); it would be pointless to go over that ground again here. Instead, it seems useful to list some of the major "varieties" of states of affairs, and note that we need to make explicit allowance for representing each variety. What follows is meant to be an heuristic list, certainly not an exhaustive one; readers are explicitly invited to note needed additions.

Major varieties of SA:

1. Person P may/should/must engage in action A.
2. Proposition P is true (false).
3. Event E has occurred.
4. Variable X has value V.
5. A has relation R to B.
6. if SA1 then SA2.
7. SA1 and SA2 and . . . SAN.
8. SA1 or SA2 or . . . SAN.

It was previously mentioned that the above is an elaboration of paradigm case logic. As such, the question immediately arises, "What are the allowable variations on the paradigm case?" What "short forms" should be taken into account, and what more elaborate forms need to be recognized? Again, what follows is not exhaustive.

Allowable variations include:

1. Omit "in which case", leaving: SA1 unless SA2.
2. Omit "unless", leaving: SA1 in which case SA2.
3. Expand any SA with any allowable substitution, including the entire "SA unless . . ." form.

For example:

(if SA1 then SA2) unless (SA3 or SA4) in which case (SA5 AND SA6).

Relations (between objects, processes, events or states of affairs) are of special interest, precisely because so much of what we need to know about the world takes the form of, "Does this relation hold between these two things?" As SA variety 5 above suggests, to say that "A has relation R to B" is to identify a state of affairs as being the case. The actual relations which are of interest in the real world are seemingly endless; a partial listing follows of some for which we clearly must make explicit allowance.

Major varieties of R (relation) include:

1. is the result of
2. is caused by
3. is part of
4. is identical to
5. greater than, less than, equal to (arithmetic)
6. is a means to
7. can be taken to mean
8. is preferable to
9. is an alternative to
10. is an instance of
11. can be used in place of
12. contains as a constituent
13. precedes
14. follows
15. occurs simultaneously with
16. is compatible with
17. is an attribute of
18. has the attribute
19. is a part of X, as is also



I want to be the first to acknowledge that the above is only the barest sketch of the specifications of an AI language; very substantial work would be required to convert it into an implementable form. But such specification was not the purpose of this section. What I hoped to accomplish was simply to suggest a way of thinking about representing the world—the "fact unless fact in which case fact" logical form—and point to some obvious features of this way of thinking. The worth of this way of thinking can ultimately be tested only in actual implementations, which one hopes may be stimulated by this brief sketch.

## SOME ALGORITHMS OF COMMON SENSE

In this last section, let us turn our attention to a very technical "how" issue: inference. Inference has been a core concern of the AI community since its founding. In some intuitively obvious sense, intelligence and inference are inextricably linked; indeed, one of our primary critical standards for a new AI artifact is the extent to which in operation it goes beyond the obvious given facts to deal with derivations.

Once we move beyond the intuitively obvious, however, inference becomes a somewhat difficult topic. We have made good progress with inference based on formal logic—the "All men are mortal. Plato is a man. Therefore, Plato is mortal." type of inference. We have run into difficulty handling "fuzzier" inferences, such as Aristotle's classic syllogism of practical reason: "I need a horse. There are horses for sale in the marketplace. Therefore, I should go down to the marketplace and buy a horse." The kind of everyday, "common sense" inference made by the average six-year-old child has, to date, overtaxed our ability to reproduce it in AI artifacts. The AI community is working on this class of problems and making progress (e.g., Shank & Abelson, 1977; Winograd, 1982); nonetheless, there appears to be substantial room remaining for new ideas and fresh approaches.

Consider the following restatement of the inference dilemma: The facts we need often are different from the facts we have. Inference becomes difficult when the needed facts cannot be formally derived from the facts at hand. How can we "know" what we don't know and cannot deduce?

This "dilemma" is actually a statement of the ordinary situation faced by any person—human or artificial—who is called upon to act in the real world. Not uncommonly, the knowledge we need in order to respond appropriately to current circumstances is not equivalent to the set of facts we have directly observed or established to be the case. Nonetheless, humans can act, and with a substantial degree of confidence, because of our knowledge of how the sort of situation we are facing ordinarily works—in short, because of our "common sense". If the

basic task of AI is to create artificial persons, then we must give them that same common sense.

Representations of exactly "how the sort of situation we are facing ordinarily works"—what Ossorio calls "paradigm case formulations" (Ossorio, 1980/1981) and Shank calls "scripts" (Shank & Abelson, 1977)—are of necessity both detailed and complex. Every such representation, regardless of terminology and structure, can only tell us what is ordinarily the case; common sense comes in when we use what we know to be the case along with what is ordinarily the case to derive what we will take to be the case. To do this, we need some algorithms for common sense, which is the substantive topic of this section.

These algorithms (or rules, if you prefer) use language derived from Ossorio's conceptualization of real-world phenomena (Ossorio, 1971/1978). As with most of Ossorio's work, the terms are elaborated in substantial technical detail, but are carefully chosen so that the average reader will not be misled by assuming the ordinary English-language meaning. Accordingly, I have chosen simply to use the terms—object, process, event, state of affairs, relation—as a set of undefined primitives, like "point" and "line" in geometry, while inviting the interested reader to pursue the elaboration of these terms and their conceptual interconnections in Ossorio's *What Actually Happens*.

Several of the algorithms speak of "reason to believe" and "reason enough". This reflects the perspective of Descriptive Psychology, which asserts that persons act on the basis of what they take to be the case. This includes both what they know (in the strict factual sense of what they have observed and/or deduced logically) and what they take to be the case because it is ordinarily part of the situation they have observed. Indeed, persons ordinarily do not distinguish between these two "types" of knowledge unless they have good reason to do so; they simply observe and act. Artificial persons, of course, must be more methodical about these matters than are most humans. Accordingly, it is necessary to make explicit the logic involved in such common sense inferences, which is rooted in paradigm case logic: We take it that things are the way they ordinarily are unless we have reason to believe otherwise.

Some algorithms for common-sense inference:

1. If object O1 exists, then any object O1n which in the paradigm case is O1's constituent also exists, unless:
  1. an alternate decomposition of O1 which does not contain O1n as a constituent is found to apply, or
  2. there is reason to believe O1n does not exist, in which case

- a. a known alternative decomposition of O1 which does not contain O1n applies, or
  - b. there exists a decomposition of O1 which is unknown to us and does not contain O1n, or
  - c. O1 does not in fact exist.
2. If process P1 has occurred, then any subprocess P1n which is a paradigm case constituent of P1 has also occurred, unless:
  1. an alternative decomposition of P1 which does not contain P1n as a constituent is found to apply, or
  2. there is reason to believe P1n has not occurred, in which case
    - a. a known alternative decomposition of P1 which does not contain P1n applies, or
    - b. there exists a decomposition of P1 which is unknown to us and does not contain P1n, or
    - c. P1 has not in fact occurred.
3. If state of affairs SA1 exists, then any object O1, process P1, event E1, or state of affairs SA1n which in the paradigm case is SA1's constituent also exists, unless:
  1. an alternate decomposition of SA1 which does not contain O1, P1, E1 or SA1n as a constituent is found to apply, or
  2. there is reason to believe O1, P1, E1, or SA1n does not exist, in which case
    - a. a known alternative decomposition of SA1 which does not contain O1, P1, E1 or SA1n applies, or
    - b. there exists a decomposition of SA1 which is unknown to us and does not contain O1, P1, E1 or SA1n, or
    - c. SA1 does not in fact exist.
4. If object O1 exists, that is reason (but generally not reason enough) to believe that object O2, of which O1 is a paradigm case constituent, also exists.

**Corollary:**

- 4.1 If object O1, a paradigm case component of object O2, exists, that is reason (but generally not reason enough) to believe that object O3, which is also a paradigm case component of O2,

exists. A similar rule applies to processes (5.1) and states of affairs (6.1).

5. If process P1 has occurred, that is reason (but generally not reason enough) to believe that process P2, of which P1 is a paradigm case constituent, has occurred or is occurring.
6. If object O1, process P1, event E1, or state of affairs SA1 exists, that is reason (but generally not reason enough) to believe that SA2, of which O1, P1, E1 or SA1 is a paradigm case constituent, exists.

*Note:* Rules 4, 5, and 6 suggest places in this inference scheme where "weights" or probability estimates could be both useful and in accord with common sense. How strong the "reason to believe" is depends on which component of which whole we have observed. The weighting is not generally a function of logical connection, but rather represents the cumulation of empirical experience with these types of objects, processes, etc.

7. If event E1 has occurred, then any process P1 which in the paradigm case is terminated by E1 has both occurred and is no longer occurring unless:
  1. an alternative process which is terminated by E1 is found to have occurred, or
  2. another event, E2, which begins P1 is found to have occurred after E1, in which case P1 has both occurred and is still occurring, or
  3. there is reason to believe P1 has not occurred, in which case
    - a. some other process, P2, which is known to be terminated by E1 has occurred and is no longer occurring, or
    - b. there exists some process P3 which is unknown to us which is terminated by E1 and which both has occurred and is no longer occurring, or
    - c. E1 did not in fact occur, or,
  4. there is reason to believe P1 is still occurring, in which case
    - a. another event, E2, which begins P1 has occurred after E1, in which case P1 has both occurred and is still occurring, or
    - b. E1 did not in fact occur.

*Note:* By substituting "object" or "state of affairs" for the word "process" in Rule 7, and substituting "exist" for "occur", similar rules for relating events to objects and states of affairs can be written.

8. If two objects, O1 and O2, exist, both of which are constituents of object O3, that is stronger reason to believe that O3 exists than is the existence of either O1 or O2 alone. A similar rule applies to processes and states of affairs.

Corollary:

- 8.1 If two objects, O1 and O2, exist, both of which are constituents of object O3, that is reason (but generally not reason enough) to believe that the relation between O1 and O2 is R12, the relation that exists between O1 and O2 as constituents of O3. A similar rule applies to processes and states of affairs.

In conclusion, I would like to revisit the remarks at the beginning of this paper. Descriptive Psychology's approach to the enterprise of artificial intelligence is both distinctive and powerful. I have attempted to illustrate in this paper both the conceptual scope of the Descriptive approach, as well as some of the technical depth it contributes. Perhaps more importantly, I have attempted to give the reader an appreciation of the difference it makes to take this Descriptive approach. To those readers whose interest has been piqued by this exposition, I would like to echo the classic advice given in New York delis to hesitant patrons: "Try it! You'll like it!"

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# HUMAN SYSTEMS ISSUES IN SOFTWARE ENGINEERING

H. Paul Zeiger

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## ABSTRACT

The architecture, design, and construction of computer software is a human activity. It is intensive in conception, imagination, description, and communication. As such, it is probably the most psychologically oriented of the engineering disciplines. This paper is devoted first to illuminating the salient features of this human activity from the point of view of Descriptive Psychology, with emphasis on the problems peculiar to software engineering. It is devoted secondly to promoting the use of Descriptive Psychology as a tool within the discipline of software engineering to cope with the formidable descriptive tasks encountered there.

This paper is intended for two audiences. The first audience consists of persons with some familiarity with Descriptive Psychology, who have had some contact with computers, and who have a modicum of curiosity about what goes on behind the closed doors of the shops where

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computer software is produced. For these readers I hope to show, as in a National Geographic article, that what goes on in that alien culture is not so alien after all, that the practices there are driven primarily by human aspirations and limitations, and only secondarily by the strange properties of the computer itself. The second audience consists of professional software engineers who are interested in anything that will make their engineering efforts go more smoothly. For these readers I hope to show that perspectives from Descriptive Psychology can shed light on certain puzzling aspects of their work, and can point the way toward improved methodologies for software design and construction.

## WHY DESCRIPTIVE PSYCHOLOGY?

When a civil engineer designs a bridge, the constraints imposed by his clientele on the performance of the bridge can be expressed in relatively simple physical terms: span, width, load-carrying capacity, and the like. When the bridge is built, the work plan is constrained by similar physical parameters: where abutments can be placed, how big a piece can be lifted into place at once, etc. When a software engineer designs a program, say a word processor, the desires of his clientele are normally that the program support them in some mental task whose characteristics are specified (usually with difficulty) in conceptual or behavioral terms: it must be easy to learn, and it must smoothly support changing your mind about what you wish to write. When the program is built, the work plan is constrained by how much one programmer can accurately visualize, by how reliably members of the work team can communicate complex agreements about who does what, etc. In these respects software engineering is the most psychologically oriented of the engineering disciplines.

Moreover, as we shall show in greater detail below, all the mainstream tasks of the software engineer are descriptive tasks. Formally speaking, anything that can be represented in a calculational system (Ossorio, 1971/1978) can be programmed. From a more practical point of view, the main challenge in getting a program right is to get its desired behavior represented in some formalism: *any* formalism. For this purpose, the particular formalisms of Descriptive Psychology (Ossorio, 1971/1978, 1969/1981, 1970/1981, 1979/1981) are very well-suited. For example, in the word processor example above, an excellent starting point for the design would be a paradigm case formulation (including lots of detail) of the process of an author writing an article; a useful model for the programmers to use when communicating with one another would be an object or configuration (Ossorio, 1971/1978) description of the text being worked on. Descriptive Psychology is especially valuable in such

applications because it is not tied to any particular programming language. Software engineers tend to suffer from their own special case of the Whorfian Hypothesis: One who programs in Fortran thinks in Fortran, and thereby overlooks important features of the task at hand that Fortran is poor at representing. Anything we can do to break this kind of set is to the good.

## THE CONTEXT FOR PRODUCT DEVELOPMENT

This section is devoted to an external view of the creation of products. It represents the external world of the creators of software, and thereby the principal constraints on what will work among their possible actions. The principal constituents of this world are elaborated below.

### The Target Community

For every product we build, there is a community that it is going out into. This community is characterized by its members, statuses, concepts, locations, practices, and world (Putman, 1981).

Among the statuses are those involving actual use of existing and proposed software products (data entry clerk), and those for which the competence required for the status will be to some degree embodied in a new product (accountant). Sometimes these come together in the same person, as when a graphic designer uses a desk top publishing system. The members of the target community expect certain statuses (e.g., Receivables Clerk) to be filled by humans and others (e.g., corporate data utility) to be filled by machines. Some products, given the current popularity of Artificial Intelligence, will fall on the borderline of this distinction, sometimes feeling like persons, sometimes like machines.

Among the concepts of the target community are many that the software itself will have to understand to some degree (font and typeface, for a desktop publisher), and more that the builders of the software will have to understand (graphic design department, paste-up). If the software is to be at all conversational in its interactions, it will have to have built-in many of the locutions of the target community. The practices of the target community work one way before the introduction of the software, and a different way after. For example, tasks formerly done by a draftsman may be absorbed by the graphic designer when a desktop publishing system is introduced. New statuses, for both persons and machines, may have been introduced, together with new or modified practices, as when a business moves from paper to computer-based accounting. The software builders have to appreciate both sets of practices (before and after), and the software itself has to embody those practices in which it participates directly. For example, a computer-based

accounting system will prepare the monthly financial statements; it thereby embodies (an alternative version of) the practice engaged in by persons under the paper accounting system. Anyone who installs an accounting system without a clear understanding of both before and after versions of the practice, in the firm under consideration, is asking for trouble.

### The Creators of Software

Into the above community come the vendors of software. They are outsiders to the target community, and are viewed as vendors of products, services, or solutions. None of these views, by itself, fits the case. If software is a product, it's a product with a big service component; if a service, it carries with it many objects to be left behind; and in any case it had better provide solutions to what the client sees as problems. The attitude of the target community toward the vendor's software is usually driven by cost/benefit considerations: up-front cost plus cost of maintenance and enhancements plus personnel training cost plus cost of time of experts and consultants, versus faster delivery of needed knowledge, smoother organizational functioning, fewer mistakes, and greater productivity. Usually these benefits are intangible and difficult to estimate, while at least some of the costs are concrete. Any techniques that support more detailed organizational analysis (task analysis, means-end descriptions; see Ossorio, 1971/1978) are called for in examining these cost/benefit issues.

The vendor needs to address the cost/benefit issues, make the benefits more concrete and estimatable, and above all generate accurate images of what the system can and cannot do. In this he is in the role of an actor's impresario, trying to make clear the potential contributions of an absent party. At the same time he has to weigh his promises against the cost of delivering on them—costs that can vary wildly as a result of apparently small changes in system capabilities.

### NEEDED ACCOMPLISHMENTS

Somebody on the vendor's work team needs to accomplish the following tasks:

1. **Locate High Opportunity Target Communities.** Over the last decade, opportunities for successful software (and hardware) introduction into communities has been generally overestimated. (The so-called home computer market is the classic example.) Sometimes this has been due to naive optimism on the part of technologists looking for a place to hawk their wares. More often it has been due to an unwillingness or

inability to grasp the real practices and values of the target community, and to do an adequate cost/benefit analysis from the perspective of that community.

2. **Conceive Products Appropriate to Them.** Similarly, we have had embarrassingly many examples of both hardware and software that were inappropriate to their target communities, for example, the original Macintosh in the business community (not powerful enough), the Amiga in the current home market (too expensive), all kinds of self-help software (benefits too vague). Disaster after disaster has been obvious in hindsight, yet none were foreseen, at least by the product builders. The effect of all this harsh experience upon the practices of the creators of software has been that now only the firms with very deep pockets will build a product "on spec". Smaller companies stick to building products so desperately needed that the client is willing to put money up front. This practice has at least the salutary effect of providing the opportunity for checking the appropriateness of a software product continuously throughout its development. There will be more below on how this can be done and on the possible role of Descriptive Psychology in the process.

3. **Create Business Relationships with Them.** At present it seems inconceivable that a successful software product could be developed without the close involvement of members of the target community throughout the entire development process. For the reasons why, see the next section.

4. **Capture the Needed Knowledge and Competence.** Persons acquire knowledge by observation and contemplation, and competence by practice and experience (Ossorio, 1969/1981, p. 32). Software acquires both, as of this writing, by its builder's building them in. Some of the researchers in Artificial Intelligence are trying to change this, but the fruits of these labors seem unlikely to hit the commercial market for several years. There is, however, an important element common to the acquisition of competence by both persons and software: *Actual participation (perhaps with restricted status) in the practices of the target community is necessary in order to generate the feedback needed to get the behavior right.* For persons, this is done by apprenticeship, with the apprentice learning on his own as he goes. For software, it is done by testing mockups and prototypes in the field environment, with the "learning" accomplished by the programmers who build the discovered corrections into the behavior of the software. It makes sense to say that by these means the software acquires the knowledge and competence needed to do its job right.

But it takes a major acquisition of knowledge and competence just to get a product to the point where it is eligible for even a limited field

trial. The key ingredient in capturing this knowledge and competence from the target community is again participation, but this time it is participation of the builders and the clients in each other's communities. For example, the software vendor needs to create activities in which both system builders and members of the target community participate. These can include observation of the target community, interviews, and walk-throughs of practices; shows about proposed system behavior, walk-throughs of designs, and critiquing of mockups, diagrams, specifications, and prototypes. Often, it will (and should) feel to the target community like bringing a new person on board.

5. **Embody Them in Working Products.** The goal is to come up with a working product that meets the needs of the target community, is appreciated by that community, and is reliable and maintainable; and do so within the limitations of allocated resources. In addition, software, like a human worker, has to grow and change with the job, and it should be possible for this to happen at reasonable incremental costs. Experience has shown all this to constitute a very challenging undertaking; many products fall by the wayside. (Indeed, my preference in software for my personal use is for programs that have survived for at least a year in a community of at least 10,000 active users.)

To build even a minimally satisfactory product calls for the accurate communication of large volumes of detail among all team members. Experience has shown that it is essential that this detail be written down; the opportunities for misunderstanding in oral communication are just too great. English (or any other natural language) often fails for this communication due to too much ambiguity or too little expressive power. For this reason one often finds a host of special formalisms in use for internal communication of design choices: data flow diagrams (Yourdan & Constantine, 1979), decision tables, HIPO Charts; social practice descriptions (Putman & Jeffrey, 1985); various kinds of tables, structured English, etc. Each of these formalisms can be viewed as a special case of one of the descriptive formats proposed by Ossorio (Ossorio, 1971/1978), so that Descriptive Psychology provides a kind of metalanguage into which we can fit each of these special communication tools. Doing this placement gives us a valuable perspective from which to create new communicational tools or enhance the old ones.

Ultimately, the entire behavior of the system must be specified in some machine-readable form. This specification may use any of the above-mentioned languages, actual compilable code, sets of rules for an expert system shell, private little languages, or what have you. But, as of this writing, whatever is going to be in the behavioral repertoire of the software, we have to put there explicitly by means of these descriptions. And, given the difficulty of getting these descriptions right, they must all

be subjected to several levels of checking, usually by some combination of independent review of the descriptions themselves with testing of the resulting software in action. The sheer mass of this descriptive task constitutes the most serious obstacle to successful completion of most software projects.

6. Introduce the Products into the Target Community. Some years ago an advertisement appeared in one of the computer trade journals showing several crates sitting forlornly on an otherwise empty loading dock. The caption read: "Some computer systems aren't delivered, they're abandoned". Today, vendors of both hardware and software are sensitive to the problems of getting a new system into effective use, but these problems remain thorny. To stretch an analogy used above, it is like bringing a new person on board, but the new person is infinitely more helpless than any human being to push for getting himself wisely used. Further elaboration of this challenging task will have to wait until I garner more experience with it myself.

## ECONOMIC CONSTRAINTS

All six of the above accomplishments cost money to do. The last three of them (capture needed knowledge and competence, embody them in working products, and introduce the products into the target community) are legitimately chargeable to software development contracts. The first three (locate high opportunity target communities, conceive products appropriate to these communities, and create business relationships with them) must come out of the software vendor's profits. The chargeable accomplishments are usually done against a budget, either an internal one or an external fixed-price contract. Thus it is crucial to be able accurately to estimate their cost up front. It is more important to have a reliable upper bound on the project cost than to be able to predict the actual cost. This is because there are so many things that software might do, which look attractive on the surface, and which should not be done because the development costs outweigh the benefits. A software vendor unable to filter these situations out is doomed immediately. (In situations involving advanced development, estimation of costs within a 50% tolerance is frequently impossible. Clients and contractors have come up with many imaginative project-staging and risk-sharing arrangements for dealing with such situations.)

Capturing the needed knowledge and competence presents at least two economic problems: On the client side it is intangible (how much does it cost to have this key person pestered by knowledge engineers?), and on the vendor side it is expensive. It is expensive because system implementation eventually requires machine-readable descriptions of

system behavior, and somebody has to span the cultural gap between the target community and some community in which machine-readable descriptions are a core element. It doesn't matter too much whether we call this somebody a systems analyst, a knowledge engineer, or a programmer; and it doesn't matter too much what language the machine-readable descriptions are in (any of the ones mentioned so far are among the possibilities). The crucial parameter is the width of the cultural gap. (Different communities implies different members, statuses, concepts, practices, locutions, or world; see Putman, 1981). The main things that need to be carried between communities for system description are concepts, practices, and locutions. We understand fairly well how to train people to translate practices and locutions (although this is far from a trivial skill to acquire); translating concepts is far less well-understood and therefore rarer. In most situations today, the width of the cultural gap is large enough that those who can successfully work across it are rare and expensive. Furthermore the task itself is very exacting, so that the systems analyst, knowledge engineer, or programmer not only has to be competent at spanning the large cultural gap, but also at managing large masses of detail, constantly checking correctness, and frequently correcting large, messy descriptions without wrecking them—not to mention dealing patiently and creatively with all kinds of feedback from both communities: The clients hate this feature; the machine won't execute that one.

The problem of spanning this cultural gap provides the field for a host of currently attempted technological advances:

### Formal Design Languages

Formal design languages constitute a compromise between English and machine-readable code (see Yourdon and Constantine, 1979, for several of the examples mentioned above). The creators of these languages attempt to remove the ambiguity of English by restricting the vocabulary and by providing formal procedures for defining new terms. They attempt to enhance the expressive power by adding new syntactic constructions, graphical or textual, to facilitate the construction of large, articulated, descriptions. Thus they allow us to bridge part way towards the terrible discipline of the fully unambiguous, implementable, description without taking the whole jump at once.

### Rapid Prototyping Tools

Rapid prototyping tools are software construction aids that assist us in building preliminary systems having limited functionality, fast. They often force us to bridge further toward the machine than does a formal design language, but pay off with something that actually runs, albeit



below the standards of the envisaged product. Such a prototype is often a necessary intermediate step, not merely for technical reasons, but in order to provide clients with something they can see, feel, and most importantly compare with their visions of how the product will behave. Just as a musician may be able to look at a score and hear the music it represents, an analyst may be able to look at a design language description and feel the behavior of the product described. Few clients are blessed with this gift; therefore the prototype is an important early step in generating design feedback.

### Expert System Shells

Expert system shells offer quick construction of systems for which the principal concepts needed by the system itself are if-then-else rules. They promise us finished products after spanning a cultural gap that is an order of magnitude smaller than we are used to, if only the desired application is amenable to description in the rule-oriented language provided. As with other descriptive languages, there is a trade-off between breadth of application and ease of use: narrow-scope tools like M-1 and ExpertEase are easy to learn and use; broad-scope tools like S-1 and Kcc call for specialized competence comparable to that of a programmer.

For the professional software builder, it is easy to become jaded about the continual procession of new software tools, each promising to make software productivity equal at last to the current challenges. There is an economic equilibrium: Software productivity has improved a lot in the last decade, and every advance is immediately absorbed by the new class of applications that has just become feasible using the new tools. The advance is never as great as its inventors hoped; still, there is always a new class of applications just around the corner that would become feasible if only we could make some part of the system building task (usually the knowledge capture) another order of magnitude cheaper.

Embodying knowledge and competence in working products also presents economic problems. Since complete, consistent, detailed descriptions are so expensive, the key challenge here is to throw away as little as possible along the way. That is, build technological capital in the form of re-usable descriptions that allow us easily to carry the bulk of past problem solutions into the future without having to re-solve those problems. (There will always be plenty of new ones!) The main tool here (in addition to all those already mentioned) is a library of descriptions, preferably machine-readable, some purchased, some locally built, that constitute the technological capital of the firm.

## HUMAN SYSTEMS CONSTRAINTS

When there are tasks that are done expensively and poorly, it is usually because the work is on the ragged edge of the abilities of persons to do it. Several of these situations in the creation of software have been suggested by the economic issues mentioned above. For example, bridging disparate cultures is difficult for many; so is managing large amounts of detail in an environment in which small slips make big messes. It is useful to enumerate the powers, and dispositions (Ossorio 1970/1981) needed for various system building tasks, along with significant behavioral limitations that will prevent persons from accomplishing these tasks. For example, we have so far mentioned the following abilities as needed at some point in the task: to capture the concepts, practices, and locutions of an alien community, to communicate them effectively to other team members, to effectively manage large masses of detail, and to cope with computing machinery. To complete this enumeration is beyond the scope of this article, but should be done as preparation for an analysis of how the entire task of software construction can be better partitioned among the various players. At present the jobs tend to fall into two classes: jobs calling for a combination of abilities that is absurdly rare (systems analyst, knowledge engineer), and jobs described by Fred Brooks's (1975) dictum: "Anyone smart enough to do . . . right is too smart to do it for long" (project librarian, software test specialist). We need to critique our classification of jobs and responsibilities with an eye toward getting the required competences lined up with what we can reasonably expect to find in one person.

There is a related class of relevant human systems constraints having to do with communication. Persons whose attention is focussed on creating or maintaining large, complex descriptions tend to forget to communicate to others those actions that impact the others' use of those large complex descriptions. As such a person, I can testify that it is tempting to dive into such a description and regard it as my whole world. Coming up for air and emerging into the broader reality is an uncomfortable task often put off as long as possible.

## METHODOLOGY

### Overview

When a product has been completed, it includes many descriptions of the behavior of the product. Some are brief and glossy, for marketing

use, as you might receive unsolicited in the mail. Others are more detailed, for the persons who are going to use the product, like the user's manuals for WordStar or PC DOS. Still others go into the inner workings of the product, for those who will maintain it, for a typical microcomputer product, these are from 3 to 10 times the volume of the user's manual. Finally, there are the descriptions that are machine readable, for compilation or interpretation by the computer as it runs the product. For a typical microcomputer word processor or spread sheet, these descriptions total from 10,000 to 100,000 lines of code in some programming language. To gain enough familiarity to modify such a product might take an experienced programmer several weeks of study.

Note that the sum total of all these descriptions *is* the product: There is nothing else to add. They should all be consistent with each other. Each should be complete, from the perspective of the community it is for. And, of course, the behavior described by each should be appropriate to the needs of the target community. Each represents the same product, redescribed from the point of view of a different community or status within a community. The language of each differs, subtly or spectacularly, from that of the others.

Each of the above descriptions has to be created by members of the software vendor's staff, perhaps with machine aid. In addition these staff members will typically produce many more descriptions, partial (including demos), incorrect, supporting (scaffolding), even subsidiary products for internal use. Some of these descriptions may be, like those mentioned above, consistent and complete descriptions of the whole product from the perspective of some special community or status within the vendor's development shop. Work planning for product development consists of deciding which descriptions are to be produced when, by whom, and how they will depend on descriptions produced earlier. A key planning question is how we apportion the work to take advantage of the different strengths and weaknesses of the team members—especially the most oddball team member, the computer.

Most of the descriptions are notoriously error-prone. Much of the development time is devoted to checking their correctness by whatever means work. More key planning questions relate to this testing: How is each description to be tested? Which can be used to test each other?

The rest of this paper is prescriptive. It consists of suggestions and rules of thumb gleaned from several years of experience. Although they are all part of the folk wisdom of software engineering, the perspective of Descriptive Psychology has thrown a fresh light on each of them.

1. About the Descriptions Generated. Every description has to be readable to somebody; the fewer that are only readable to arcane specialists, the better.

Compiling or interpreting descriptions is desirable. For example, programs that have to format text on a page often interpret a little language for describing the formatting: Center this line, change the right margin, etc. A program that needs to know the address of the Secretary of State of each of the 50 states would normally keep this information in a table. In each case we have a small descriptive language with narrowly prescribed formats that is read and written by both persons and programs.

Special viewing tools short of full compilation or interpretation may be needed. The best examples of these are for dealing with the complex descriptions we call computer program source listings: cross reference generators and formatters that capitalize and indent automatically according to the structure of the text.

All of these descriptions may be considered cases of some Descriptive Psychology format: The page formatting language turns the text to be printed into a kind of process description. The table is a state of affairs description consisting of a number of element-individual pairs. The programming language source listing is process description with object, process, and state of affairs constituents. It is useful to take this perspective when confronted with a particularly opaque description; sometimes it can be thereby be reorganized into something better.

For descriptions that are to be written in an actual programming language, use the highest level programming language for which you have an adequate implementation. When applied to programming languages, "higher level" means "permitting a narrower cultural gap between the program text and a description in the language of the target community". (Another way of saying this is that the basic concepts of the programming language are closer to the relevant concepts of the target community.) Consequently, the higher the level, the greater the economics across the board in construction, checking, and maintenance.

2. Make up Languages Appropriate to the Task. Descriptive Psychology provides a rich stock of descriptive formats (units for objects, processes, events, and states of affairs; task and means-end descriptions, etc.). There is an infinite range of possibilities for how these formats, or variations on them, might be used in a given practical descriptive task. The job calls for experience, imagination, and wisdom. Descriptive Psychology is a more a metalanguage than a language; it provides boundary conditions on what forms of expression make sense, and some hints as to what might work well in certain situations, but the detailed representation of each real world situation (including the form of the representation) is up to the person who needs to describe that situation for computer use. This is most obvious (and most difficult) at the point

where the bottom levels of human-oriented description meet the top levels of machine-oriented description.

3. Anchor at the Top. Descriptions of large, complicated systems are made comprehensible (sometimes) by the copious use of part-whole descriptions. Unless some very strong reason calls for an exception, *always describe the whole before its parts*. Such a description provides the context for each part described, enhances readability, and reduces the likelihood of inconsistency. Note that each part described may be an object, process, event or state of affairs (not to mention the derivative computer science concepts: procedure, data structure, message, agent, module, etc.).

Once you have become familiar with the purpose of a computer system that is under design, it is very easy to neglect to write down the topmost levels of its description. This tendency must be avoided, both for the sake of future maintainers of the system and for the sake of your own future elaboration of the details: The top levels of the design contain boundary conditions on what will work at the lower levels that are amazingly easy to forget.

The top levels are best written in a language very different from most programming languages. A good starting point is a community description: What members (software-implemented agents) will there be? what statuses? what practices? what concepts are needed to carry out these practices? what messages sent and received? what is the logical form of these messages? A good exercise for systems analysts is to critique data flow diagrams (Yourdon & Constantine, 1979) from this point of view. What do they cover? What do they omit?

4. Keep Everything Visible (to anyone who cares). The product is composed entirely of descriptions. Each description is written in the language of some community. Some of these communities are closely tied to the computer and some are not. Complexity is everywhere. The most important guideline I can think of is this: *describe each complexity in the language of the community it belongs to*. Lawyers have honed their language to deal with legal complexities, managers with business complexities, and accountants with financial complexities. These complexities are difficult enough to write down in a language that was designed for them. Writing them down in computerist's language is certain disaster: then for anyone to critique or maintain them, he has to be fluent in the concepts of both communities. The guideline above maximizes the visibility of the product's design; everyone who has an interest in a certain aspect of the system has at least a chance of reading the descriptions that pertain to that aspect of the system.

Of course, we must eventually have machine-readable descriptions, so if the descriptions discussed above need to be translated by hand into

machine-readable form, we have accomplished little. The answer is to machine-translate these descriptions into something that is more harmonious with the computer. Put another way, we make these descriptions readable not only to some target community of persons, but to one or more computer programs designed specifically to handle this class of descriptions.

5. **Minimize Redundancy.** Redundancy in descriptions of a software product is a major liability. It bloats the descriptions, inhibits their readability (and implementability) and, worst of all, opens the door for inconsistencies between the various redundant parts. On the other hand, the removal of redundancy is absolutely secondary to the objectives of the preceding paragraph; readability to the concerned communities comes first. This means that whenever two descriptions of the "same thing" are needed for two different communities, we need to either pick one and derive the other from it (preferably by machine), or create a third and derive both of them from it. The simplest example is a table of numbers: It needs to be in text form to be created, critiqued, and revised by persons, yet eventually gets represented using the internal representation of numbers in the computer. Often we find ourselves building separate programs to do this translation; they are compilers for data.

6. **Build a Dictionary of Concepts.** The total of all the concepts used in all the descriptions that constitute a product make up a language and world private to the product (and the development team). For example, the documentation for a word processor often contains specialized terms like "cursor", "text buffer", "insert mode", and "edit session". If we continued the search for specialized terms throughout all the descriptions making up the word processor right down to code, we would typically come up with 500 to 1500 words and phrases. As obnoxious as such a jargon is, it is inevitable, and the best we can do is to compile a dictionary for it. That way we at least reduce the chances that two team members (or one at different times) are using slightly (or wildly) different versions of what they thought was the same concept. In the jargon of the systems analyst, the "data dictionary" is an approximation to this dictionary. To design effective formats for such a dictionary that allow it to be more comprehensive than current data dictionaries is a major potential application of Descriptive Psychology to software engineering.

7. **Isolate the Tough Descriptive Nuts; Start on Them Early.** Early in the descriptive task for a product, there often surface situations that cause butterflies in the stomach of the experienced analyst. Some description may appear to require a billion characters of text to write down, or some object may require conceptual elaboration in two entirely

different directions for two of the communities involved, or some needed part of a description may appear to be subject to combinatorial explosion. These tough descriptive nuts may constitute real show stoppers, or merely points where unusual skill will be needed to come up with the right kind of description. In either case, lavish attention early from the most experienced brains on the project is called for. The worst thing that can happen is to pick an inadequate descriptive methodology for one of the nuts and try to bull your way through, only to have the project bog down because of it 10,000 lines of code later.

8. **Test Concurrently with Every Step of Development.** As more and more descriptions are constructed and hooked together, more and more of the behavior of the desired product becomes manifest. For every deviation of this behavior from that desired, we must find the bug and repair it. To do so appears to take an amount of effort that increases faster than linearly in the size of the portion of the product so far constructed. To avoid major wastage of time (testing typically consumes at least as much time as building), we must organize incremental testing along with incremental building so that the troubleshooting time does not explode as the product nears completion. I find this a most challenging facet of the art of software engineering.

The preceding paragraph was concerned with the effort necessary to find bugs. There is an analogous situation with respect to the effort necessary to fix them. Each bug fix can be visualized as backtracking in the construction process to the point where an error was made, then rebuilding forward without making the error. The cost increases with the distance you have to backtrack: Early-stage design errors that surface late in the construction process are particularly costly. With long experience, project managers develop an instinct for how to organize the work to hold down the length of the likely backtracks. It would be nice to have some kind of theory of this phenomenon.

9. **Use Persons Far From Your Own Community as Testers.** A good aeronautical engineer can almost feel the stresses in a plane in which he or she is flying. The same is true for software engineers, and they seem to have an instinctive disinclination to break that which they have built. Therefore we need persons with a different mental set to serve as testers.

10. **Make a Visual Mockup First.** Each software product has its own distinct feel. Some feel like flexible and powerful machine tools in the hands of an expert, like a radial arm saw used by a cabinet maker (the Unix shell is a possible example). Others have the comfortable feel of a familiar household appliance, always responding appropriately to a few simple commands (the PFS series of products was designed to be this

way). Still others give the illusion of a rather limited person who is holding a conversation with you (e.g., the infamous Eliza, or the dialog boxes used by many Macintosh programs). It is essential that this feel be harmonious with the desired role of the product in the target community, and this must be assured up front, for the feel influences everything about the internal design. It is becoming fashionable among software developers to check this out via one or more mockups that simulate the product's behavior in a very restricted range of scenarios (Dan Bricklin's Demo Program is often used for this).

11. Implement the More Visible Parts Before the Less Visible. Although description proceeds most naturally top down, from the whole to the parts, the parts can be implemented in many possible orders. The order of implementation should at least do justice to the extreme error-proneness of the descriptive task: Of all the parts you might implement at a given point in time, implement first the one that is the most visible; that way you get the most opportunity for testing and inevitable revision. The preceding paragraph is an example: The product's feel is its most visible part. If two parts are equally visible, implement first the one that is more error-prone. If, on the other hand, you implement something invisible, its faults will remain hidden, lulling you into a false sense of how much has been finished. This advice dovetails with the discussion above about testing concurrently with every step of development.

12. Don't be Afraid to Use a Rich Array of Descriptive Methods and a Correspondingly Rich Array of Software Tools for Dealing with Them. Fifteen years ago, almost all the descriptions making up a business-oriented software product were of two forms: tables and Cobol code. Today it is more common to have many forms: tables, knowledge bases, interpreted descriptions of processes, relational models, social practice descriptions, and even different programming languages for different parts of the product. Each of these descriptive forms might have associated with it a compiler, an interpreter, an editor, a critic, or a formatter. We must be careful not to be overwhelmed by the task of building these tools, yet it is often economical to build them because they can be used across a range of similar products.

13. Cast the Most Volatile Parts in the Most Pliable Medium. Tables are "soft" (easily changed); code is "hard"; the other descriptive forms fall somewhere between. Some descriptions get revised with every bug fix or product enhancement while others remain stable for years. Obviously, we want to make the medium fit the function: soft media for volatile functions; hard media for nonvolatile functions. This apparently simple objective is astoundingly hard to achieve in practice.



## EPILOGUE

I have tried here to follow my own advice and give an exposition anchored at the top and elaborated down to a useful level of detail. I wish that it contained more concrete, useful, rules. I am happy, though, with the number of guidelines and rules of thumb included, and particularly pleased with the perspectives on software engineering that I have demonstrated by using them. I hope that some of the questions raised here may provide others with fruitful research topics.

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Author's address: 710 Hawthorn Ave., Boulder, CO, 80304

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# KNOWLEDGE ENGINEERING: THEORY AND PRACTICE

H. Joel Jeffrey

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## ABSTRACT

The most difficult part of building an expert system (one that models significant human expertise) is knowledge engineering, the art of gathering expert human knowledge and representing it in technically usable form. Since the knowledge engineer's goal is complete, precise, technically usable representations of human behavior, and Descriptive Psychology is a systematic formulation of the concepts of person, behavior, language, and the real world, one would expect Descriptive Psychology to be very useful in knowledge engineering, and this has proven to be the case. In the last several years considerable experience has been gained in using the formulations of Descriptive Psychology to do knowledge engineering in a variety of areas. This paper presents some of these formulations, and the concepts, approaches, and practices based on them.

The past ten years has seen the emergence of an area of computer science and technology known as "expert systems". An expert system is one which attempts to reproduce the behavior of a human expert or

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experts in some domain. It is widely agreed that the most difficult part of building an expert system is getting the expertise from the human and representing it in a form that the computer can use it. That enterprise is known as knowledge engineering.

The author has been engaged (with others, notably A. O. Putman and M. E. Haarer) for several years in building expert systems. We have successfully produced several systems, covering a wide range of expertise, which compare favorably in size with other expert systems. (One of these, MENTOR, is discussed in detail in Jeffrey & Putman, 1983.)

In the course of this work, we have used, and in some cases developed, a number of concepts and practices which we have found make a substantial difference in our ability to gather the knowledge necessary and represent it in computer-useable form. This paper presents these approaches, concepts, and practices.

The paper discusses the logic of representing human behavior, and the practice of knowledge engineering as a human enterprise. It addresses the twin issues of what one must specify in order to represent certain types of human expertise, and how one goes about gathering the necessary information. The logical requirements that any form of representation must meet in order to qualify as a description of this type of expertise are presented, and it is shown why certain technical developments in artificial intelligence (e.g., "frames" and "frame systems") have proven so attractive to workers in the expert system area, but so difficult to use effectively.

This paper is intended to address (at least) two distinct audiences: Descriptive Psychologists interested in applications of Descriptive Psychology in technical areas and/or other practical realms outside clinical psychology, and those familiar with expert systems who are interested in a different approach to the problems encountered in building them. Descriptive Psychologists may find the development of the parameters of Intentional Action and Social Practice Descriptions to be a review of familiar material. Others may face more a difficult problem. The discussion of human action presented in this paper is deliberately couched in common terminology, but includes a number of highly technical concepts, such as intentional action, social practice, knowledge, perspective, and skill, to name a few. Keeping this in mind may help to avoid the impression that the discussion is "loose" or informal. The interested reader is referred to Ossorio (1970/1981), Jeffrey and Putman (1983), and Putman (1981) for more detailed presentation of these concepts and their relation to other fields of psychology.

The approach to expert systems, and artificial intelligence in general, exemplified in this paper differs in two significant ways from the more usual ones. First, the central concept is action, rather than knowledge. Expert behavior in a domain is reproduced by representing, at a useful level of detail, everything it takes to engage in the behavior (or behaviors), and having a software system that can act on those descriptions. Knowledge is one (but only one, as we shall see below) of the necessary ingredients of behavior descriptions. By contrast, the more usual approach is to treat a person as an "information processing mechanism", and actions as logical implications of the information (Firschein, 1984).

The second major difference is to view expert behavior as a case of human behavior, and to note that knowledge engineering is a case of one person describing another's behavior. It is therefore a human enterprise, in which the relevant concepts, skills, and perspectives (about which much more will be said below) are those which are oriented to understanding and describing another human's behavior, rather than those from mathematics, computer science, or any other technical realm.

## BACKGROUND

Ever since computers began to be commonly available in approximately the early 1950s, researchers have attempted to program computers to do things that, in the common idiom, are called "intelligent". By this it is meant that the things are not done merely "by rote", but require analysis, judgement, skill, or some combination thereof. This field has come to be called "artificial intelligence".

Artificial intelligence includes several distinct areas. Examples include programs to play games "intelligently" (i.e., not simply by a procedure with a guaranteed result); programs to solve problems; and programs to understand natural language.

In recent years the area of expert systems has become quite prominent, bearing the fruit of actual successes and programs of practical use outside the academic community. As human expertise is expensive and rare, there is great demand for such systems. The core practice in this area is the production of computer programs that reproduce the behavior of some human expert or experts (Rich, 1983).

Examples of working expert systems include MYCIN, a medical diagnosis system (Buchanan & Shortliffe, 1984); PROSPECTOR, a geological data analysis program (Duda & Reboh, 1984); and R1/XCON, a program to configure computer systems (Kraft, 1984). An expert system, then, is a computer program that engages with a person as a human expert in some area does. Another way of saying this is that it

makes sense to view the program as engaging in the social practices that the human expert does. (This does not mean that the human expertise has been reduced to an algorithm. This issue has been addressed in some detail in Jeffrey, 1981.)

It is the knowledge engineer's job to capture and represent what the expert does, in such a way that the system can engage in the practices of interest.

Obviously, the form available to the knowledge engineer for representing the expertise will heavily influence representation. Perhaps not so obviously, this form may, and often does, also influence what expertise the knowledge engineer gathers and how he gathers it. Further, the expertise (and all of its aspects) is not the same as the form for representing it; representing human expertise requires that we have a statement of what that expertise consists of, independent of the form for representing it.

## THE INFORMATION TO BE GATHERED

### "Knowledge Engineering" vs. "Action Representation"

The term "knowledge engineering" is standard terminology in the expert system field. It reflects a certain approach to the problem of reproducing human expertise. This approach is to consider a person's knowledge a "thing" which he has, and which he "applies" to a problem, the outcome being some performance. With this approach, the emphasis is on finding out what the expert "knows" and then connecting this knowledge to the performance. In most systems, the knowledge is connected to the actions by "rules" of the form, "If X, then Y". The particular Xs and Ys are found by talking to the expert, or experts, and may be either a further item of knowledge or a performance. Here is an example, from the MYCIN system:

If: the stain of the organism is gram-positive, and the morphology of the organism is coccus, and the growth conformation of the organism is clumps

Then: (with certainty 0.7) the identity of the organism is staphylococcus (Rich, 1983, p. 286)

I believe that this term, although standard, is something of a misnomer. Taken literally, it indicates that one is building some object, or construct, out of "knowledge". Further, the knowledge engineer almost inevitably focuses one on the knowledge aspect of the enterprise. However, what matters is whether the system reproduces the "performances" (using the term as it is used outside Descriptive

Psychology) of the expert, not the knowledge itself. In other words, it is the behavior of the expert that is to be reproduced, and I believe therefore that a more appropriate focus, and terminology, is *action representation*.

The action representation approach to the task of producing an expert system is not to ask, "What does the expert know that allows him to perform in this way", but rather, "Exactly what does this expert do?", or, more technically, "What are the Social Practices that this person engages in?"

To answer this question, the knowledge engineer presents social practice descriptions of the intentional actions the person engages in. These social practice descriptions are described in detail below.

Approaching the task in this way does not eliminate the need to specify the expert's knowledge. Rather, it expands the task of the expert system builder to specify not only the knowledge, but all of the other aspects of the actions the expert engages in, and their relationships.

The following discussion addresses the parameters of intentional action and how one acquires the information that allows one to fill in the parameters in actual cases. The presentation begins with an actual case and develops each "type of knowledge" (i.e., parameter) necessary.

This form of presentation is intended to highlight, and emphasize, the close connection between ordinary "common sense" understanding of human actions and the technical ways of acting on that understanding that one must have for technical work.

A further point is in order. As has been discussed at length elsewhere (Ossorio, 1970/1981), Descriptive Psychology is not simply another theory or approach; it is the systematic articulation of the concepts of person, behavior, language, and the real world. This contrasts with a theory, abstraction, construct, etc. The particular form used to represent the aspects of a person's actions is open to a great deal of personal preference and choice; the logical requirements any such representation format must meet are not. As a result, using the formulations of Descriptive Psychology to understand, and represent, a person's actions (i.e., knowledge engineering) contrasts, in some cases quite sharply, with using abstractions such as frames, if-then rules, or mathematical logic (Winston, 1984). It is hoped that this form of presentation will make these differences clearer to the reader.

### What Kinds of Information are Needed

Let us begin by presenting some actual data from an expert. The types of information present in this data will then be discussed. After this analysis, other types of information (aspects of a description of a

social practice) that are not represented directly in this data, but which we can recognize as necessary for a complete picture, will be discussed.

This data is a verbatim fragment of an interview with a computer programmer of many years experience. The interviewer asked the person to explain how he locates and identifies errors in a computer program, based on observed erroneous performance by the program (known colloquially as "fixing a bug").

This topic is presented here because it is widely accepted as a practice requiring considerable skill and analysis, as well as certain observable Performances. In other words, to describe "bug fixing" one must address several aspects of intentional action, both the "hard" and "soft" aspects (as they are commonly called, albeit not by Descriptive Psychologists).

This interview also provides excellent examples of the sort of language one encounters in actual interviews, and thus is good raw material for the later section of this paper, in which some of the practical issues of interviewing people and understanding what they say are addressed.

Finding a bug in a program is a job of eliminating all the places where the bug isn't. Anything you can do to shrink the possibilities is a step in the right direction.

Sometimes I will first just run the program a half a dozen times to be sure I get the feel of it—what it's supposed to do. But the thing I have to be able to do, before anything else can begin, is to reproduce the bug.

Once I can reproduce it, I follow two rules of thumb. First, do anything that will narrow the search, and second, do the easy stuff first. Experience shows that doing the easy tests first is often helpful even if you don't think the bug is in the areas you can easily test.

You have to have a mental image of what the program is supposed to do. One way to find out where the program and your mental image are out of harmony is to add code to the program. This lets you test what the program does against what you expect it to do.

### Process Information

Perhaps most obvious type of information in this interview is procedural; actions that a programmer takes in order to "find a bug". These include "reproducing the problem", "narrowing the range where the problem could lie", "getting an understanding of what the program is supposed to do", "adding code to the program", and "running a test".

Each of these actions are part of the overall practice of fixing a problem in a computer program; they are steps a programmer takes, or may take, in order to carry out the practice. They may not all be taken, and may not be taken in the order listed here or the order mentioned by the expert interviewed; they constitute a list, with no order implied, of the tasks involved in this practice. These are the *stages* (using now the technical Descriptive Psychology term) of this practice.



Next, some of the stages we have listed have associated with them certain rules for when they are done. These rules, or constraints, may be giving a certain order to the stages ("the first thing to do is . . .") or to the circumstances under which they are done ("if I don't have a good feel for the what the program is supposed to do . . ."). These rules are the *attributional* and *co-occurrence constraints* of a process (Jeffrey & Putman, 1983; Ossorio, 1971/1978).

These Constraints, and the expert's report, give the possible sequences of the Stages that one might encounter in an actual occasion of a programmer finding a bug. These sequences (technically, the *versions*) of the practice being described complete description of the procedural, or Performance, aspect of the description.

Readers familiar with rule-based expert systems (Rich, 1983) will recognize constraints as rules. Further, carrying out a Stage can also be represented as a rule. The point is not that this formulation replaces rules (although it could, and has, in the systems we have built); but simply that there is a significant difference between the two types of rules, which is being noted here.

### Knowledge

A good deal of the expert's discussion above is devoted to such apparently nebulous notions as "getting a feel for the program" and "a mental image of the program". One possible way to deal with this type of report is to invent categories of information, with these labels, and place this portion of the interview information literally in these categories. This approach has been taken for example by Schank (Schank & Riesbeck, 1981), in which categories such as "mental transfer" are used to denote a person telling another person something. It is demonstrated in detail by Weilinga and Breuker (1985) and Ferrand (1985).

Our approach to this type of data is less literal but, it is hoped, logically tighter. When a person acts, he is acting on several items of knowledge—things he knows. (This is articulated in detail in Ossorio 1970/1981.) In discussing what he knows, a person may not (and in fact usually will not) use language that states directly that this is something he knows in doing this practice. There are many language constructs for expressing this distinction; a person will use the ones he prefers (perhaps for a variety of reasons). Our approach is to note that the expert informant, with whatever language he uses, is referring to some item of knowledge that matters in engaging in this practice, and will represent each such item explicitly in the description of the practice. (As will be seen below, the expert's language for these items is used in another way also.)

This is not "interpreting" the knowledge, or "filling in incomplete knowledge", the more usual approach (Weilinga & Breuker, 1985). It is recognizing the concept, fact, or perspective the person is acting on.

Thus, another type of information that the expert has given in the above interview is the knowledge he has; technically, the values for the *know* parameter of the action. The job of the person observing and describing the expert's actions (the knowledge engineer) is to identify exactly what this knowledge is, for the social practice of interest.

In prior formulations of intentional action there was some ambiguity as to precisely what knowledge must be specified in order to represent an action (Ossorio, 1970/1981). In particular, it has not been clear whether the knowledge required for a stage of the practice belongs in the description of the practice itself. If one had to include all items of knowledge from a stage, there would be significant technical difficulties, because stages are themselves social practices, and thus subject to further description, down to whatever level of detail is needed.

The necessary clarification is this: the knowledge one must specify in order to give a social practice description is exactly those things the person must know to engage in *this* practice (but not some stage of the practice) (Putman, 1985).

It is useful to distinguish three types of knowledge. First, the person must have the facts of the particular case. If the expert in the above interview is to debug some program, clearly he must know what program it is; if a manager is to interview a candidate for a job, he must know which candidate and which job.

Second, the person acting must have the relevant concepts—that is, be able to make the relevant distinctions. The programmer must be able to distinguish between proper and improper program performance; in several of the practices one finds in psychotherapy, therapist must know the difference between authentic and inauthentic behavior (although he certainly need not use these words for the distinction).

Finally, the person acting always views the situation from a certain perspective. The concept of perspective is elaborated in detail by Putman (1985). Briefly, each status of a community has its perspective, and one sees "the facts" from that perspective. Further, one values certain states of affairs over others, and chooses actions that reflect these values (Ossorio, 1981/1983). (This formulation of perspective differs substantially from the semantic net formulation, in which perspective is equated to purpose. The reader is referred to Winston, 1984, pp. 263-265, for more information on that usage.)

Often, adopting the appropriate perspective is necessary to successfully carry out the practice. For example, one of the practices involved in designing and building a computer system is interviewing prospective

users of the system, to gain an understanding of what they do and how the system would fit into their work practices. To do this, the interviewer must be able to adopt the user's perspective. If he can not, he may not recognize values and choice principles (Ossorio, 1981/1983) that play a significant part in the users' work practices, and thus the interviewer's descriptions of use practices will be an unreliable guide in deciding what the system should do and how it should look to a user.

Identifying the necessary perspective for engaging in a practice is often one of the more difficult tasks facing the knowledge engineer, because very often (and paradigmatically) the expert simply adopts the necessary perspective, without recognizing or being able to report that he does so. (This will be discussed further in the section on practical interviewing techniques.)

There is a further complication here. It is crucial to keep in mind that the knowledge a person must have to engage in a practice must be "present when they are doing it". That is, the person must be acting on the appropriate distinctions, facts, and perspectives. This in turn implies that it is not enough for the expert system merely to have the knowledge stored, or for the knowledge engineer simply to identify the knowledge, because merely telling a person what concepts, facts, and perspectives he needs will virtually never suffice to get him to be aware of the facts, make the distinctions, or adopt the perspectives. The expert system must also contain a representation of the performance the system must engage in to get the person to be aware of the fact, make the distinction, or adopt the perspective in question.

Consider again the example of the computer system designer. Suppose we are producing an expert system to assist someone in designing a computer system.

Here is one way in which this expert system might use the concept of perspective in assisting the human designer:

The user's perspective is crucial here. What do you think that perspective is?

(User replies)

OK, Be sure to consider that perspective when you are designing the system.

This interaction is not likely to be more than minimally helpful to the designer, because while it does remind him of the user's perspective and its importance, it does not help the designer in adopting the user's perspective.

Here is an illustration of another approach, which we have used frequently with good results:

The user's perspective is crucial here. Think over what you know of how the XYZ Department handles these forms. What seems to be the part of the job the people care the most about?

(User replies)

OK. Is there a part of this job that the people in the department would delegate to someone else if they could?

(User replies)

OK, Bob. One last question. How do the people in XYZ feel about the importance of these forms to Amalgumated Assets? Do they believe it is really important to get them done quickly and accurately, or do they feel they are basically "pushing paper?"

None of these questions and reminders are important for the content of the answers; the key is that in answering these questions the system designer is (at least very probably) looking at the job of the XYZ department as the people in that department do. In other words, the system designer is being asked questions that will tend to get them to adopt the perspective of a member of the XYZ department.

There is one other significant difference between these two illustrations. The first is couched in the language of an observer of the action the designer is engaged in; it is the language one might use to talk *about* the practice. The second is couched in actor language—the language one might use to talk *with someone engaged in the practice*.

At this point some of the differences between the usual approaches to knowledge engineering and that in this paper are visible. The more customary way of handling expert knowledge is to begin with a self-report or an observation, represent it mathematically, analyze it into logical primitives, apply mathematical transformations to the resulting representation, and attempt to fill the slots of the frame (Brachman, 1979; Weilinga & Breuker, 1985). In contrast, the key activity involved in representing knowledge as presented here is not analyzing it, inferring or deducing other knowledge from it, categorizing it, or analyzing its action implications. Rather, one begins with the action, and represents the knowledge needed as simply that: necessary facts, concepts, or perspectives. The items of knowledge then are referred to in the constraints on the stages and options.

The reason for this way of proceeding is not that analysis is somehow undesirable, but rather to keep all such analysis in its proper logical relation to other aspects of action. Specifically, the expert, or the expert system, may have to do something (which may include analysis) to gain some knowledge it needs in order to act, but the key to determining

what to do next (including whether to analyze) is the action (the social practice) being done.

The reader familiar with more traditional approaches to knowledge representation may find some similarity between Stage-Options and Knowledge, on the one hand, and procedural and declarative knowledge on the other (Harmon & King, 1985). There is some formal similarity, but the distinctions are quite different. Declarative knowledge is a fact which is simply asserted, whereas procedural knowledge is a procedure which produces the fact. Stage-options are the formal means for representing what the person does, whether finding out some item of knowledge or anything else; knowledge is what one must know to carry out that practice. Some of this knowledge may be "procedural", in that one must do something to arrive at it.

### Skills

It is common for experts to report doing things for which there is no procedure—no "how" they do it. For example, our expert programmer reports that he will "do anything that will narrow the range". One appropriate name of this practice is, "Narrow the range of the places where the bug might be". When asked how to do that, he can give a number of actions that might be helpful, but if asked how he chooses, he cannot answer the question. This is a case in which there is an action, which could appropriately be termed "choosing a technique to narrow the range where the bug might be", which the expert simply *knows how* to do; there is no other "how". In other words, this is a skill a programmer engaged in this practice must have.

Descriptive Psychologists will recognize that this is by no means uncommon, and we have found it so in actual practice. An example from another arena is instructive: when interviewing a person for a job, there are certain things one can do that will make a significant difference in carrying out the practice, but are not procedural; there is no "how". These skills include getting a person talking openly and candidly; unobtrusively drawing a person out on a topic; and assessing whether a person has a personal characteristic, based on what they say and do in the interview.

It should be noted that while there may not be any Performance that constitutes carrying out this practice, this does not mean that there is nothing to say about it. Part of the knowledge engineer's task is to recognize when the expert is exercising a skill (and thus when there is no point in asking how they do this particular thing), and then skillfully finding out what the expert can say about it that is useful to someone else. (Again, more on this later in this paper.)

The distinction being drawn here is not that between declarative and procedural knowledge one may find in the cognition literature (Harmon & King, 1985). It is not a distinction between types of knowledge at all. Knowledge refers to concepts (distinctions), facts, and perspectives. The role it plays in an action, as we have seen above, is that without the various things one must know, one cannot choose between stages, or options of stages, for these are constrained (in reality) by states of affairs which the actor must properly appraise. These logical relations are represented by attributional and co-occurrence constraints on stages; the states of affairs in these constraints refer to items of knowledge in the social practice description. Skills, by contrast, refer to procedures (technically, Performances in the intentional action description) which the actor simply carries out, with no need of (and in fact no use for) a social practice description describing how to do it. Such skills are extremely common in human action, although particularly obvious in expert behavior. (The reader is referred to Ossorio, 1970/1981 for further discussion of skills.)

### Elements and Eligibilities

In the above interview fragment, it is easy to observe that there are various objects involved: the programmer, the program, the bug, etc. Further, any particular instance of debugging a program will involve particulars varying from case to case, but the logical *elements* will remain the same: program, bug, etc. This category of information addresses the "object" aspects of the practice (Ossorio, 1971/1978).

There are three aspects of this information: the *elements*, *individuals*, which are the actual particulars of the case, and *eligibilities*, which are the logical rules stating which individuals may take the place of which elements. For example, the role of "bug" (the element) might be specified by the individual with the name "Failure Report 0016A", or "the problem Jane found on October 13".

Just as rules constrain stages, rules may constrain which particular individual is used for a given element. This is also part of the information the expert provides.

### Paradigms

Sometimes one can recognize two or more ways a practice can occur which have very little relationship to one another, other than being in fact ways of engaging in this practice. This is discussed in some detail by Jeffrey and Putman (1983) and Ossorio (1971/1978). The information discussed so far (the stages, versions, elements, individuals, eligibilities,

and constraints) comprises one paradigm. Any further paradigms consist of the same logical elements.

### Significance

A very important part of the information needed to represent human expertise is part-whole information: the larger social practice this practice is part of (if any).

For example, debugging a program might be a stage of developing a new program or making a change to an existing one. Developing a program, in turn, might be a stage of developing a new software product, making an addition to an existing product, producing a software tool to be used inside the organization, or experimenting with a new approach to a problem (to name a few).

It is quite common for a person to act differently—that is, do "the same thing" differently—when that action is part of different social practices. Testing a piece of experimental software for in-house use, for example, is quite different from testing a software product to be released for sale to the general public, although the practice of testing a program may be identical in all other respects.

Similar, less technical, examples abound at all levels of human interaction. One says "Hello" to a friend differently from the way one does to a stranger in an elevator; one hugs one's sibling differently from the way one hugs one's spouse; one writes a letter to one's aunt differently from the way one writes to a customer service department, etc.

This information, therefore, is quite important to the representation of the expert's actions. Interestingly, it is often less easily accessible, for what one is doing by doing *this* is often simply part of the "ground" on which the "figure" of one's current action is taking place. As we shall see, this is another area in which the knowledge engineer's interviewing skill is particularly important.

### The Community

At this point we have discussed most of the types of information present in the interview with the expert programmer. However, there are other aspects of describing a person's actions that we must address. Social practices have a place in the larger configuration of a community (Putman, 1981). Certain aspects of the description of the community in which the informant's actions have a place are important in producing a system to engage in those actions. The most important of these are the statuses involved in the practices, and how intrinsic the practices are to a person in each Status.

As discussed by Putman, one's status in a community is a codification (a representation) of one's eligibilities for various practices. For example, "programmer" is the name of a certain status (or "place") in what one might call the "programming community", and "debugging a program" is what members of that community call the practice our expert informant was discussing.

To a person in some status within some community, certain practices are engaged in with no further end in view. To put it another way, they are done for their own sake, rather than as part of some larger practice. Such practices are called *intrinsic*. To a programmer, writing a program (i.e., designing it, writing it, and debugging it) is intrinsic.

Other practices are *instrumental*, that is, done not for their own sake but because they are a part of a larger practice. For example, running the program with a bug several times is not something a programmer does for its own sake; it is a stage in debugging the program.

The expert system to be produced is to function in certain ways as an expert in the area of interest. This means that it will have a certain status (place) in the community in which the practices in which it engages have a place. That place is an aspect of the information the knowledge engineer must gather.

## OTHER APPROACHES

The approach that has been presented differs in two important ways from more traditional ways of organizing expert knowledge.

The first is to focus on the action as the central logical element. The social practice description, as described in the foregoing, is the vehicle for representing the social practices the expert, or the expert system, engages in. The process structure of the practice is given by the stage-option structure, as controlled by the constraints. The roles that objects play in the practice is represented by the element-individual-eligibility structure. Knowledge is "defined" by having the place it does in the social practices: concepts, facts, and perspectives necessary in order to carry out the practice.

The second difference is that while it may be necessary in some cases to specify how some item of knowledge is found, this is not the central focus. The focus is rather on where in the practice being described the knowledge makes a difference. The traditional approach virtually always assumes that knowledge has a certain structure, and is inferred or deduced by various mechanisms. (Good examples of this philosophy are Brachman, 1979 and Weilinga & Breuker, 1985.)



## Frames and Scripts

In recent years certain researchers have noticed that it is often useful to assemble these items of information into "chunks" (as they refer to them), called "frames". A frame is a collection of items and properties that together describe an object or event. When the frame is oriented to describing an action, it is a "script" (Rich, 1983; Winston, 1984).

There is clearly a good deal of similarity between a frame and a social practice description. This is probably due to the fact that both approaches address the problem of describing the actions of a person, and there are severe logical constraints on what must be included if one is to have an adequate account of a person's action (Ossorio, 1970/1981).

Social practice descriptions differ from frames primarily in content, rather than formal structure. The concept of a frame (as it is currently understood in AI) is cruder than that of the social practice description. It is designed to represent answers to the question, "What plays a role in this thing (action, object, etc.)?" Any process, object, or state of affairs that plays a role may be included. For example, the flame on the candle on the birthday cake, the ribbon on the birthday gift package, and cutting the cake are all typical elements in a frame describing a birthday party (Rich, 1983). One specifies a frame simply by specifying its name and its parts, known as "slots".

Social practice descriptions are designed to represent everything one can say about a practice, at this level of detail. The various parts of the description have the structure, and relations, given above. Another difference lies in the use of the concepts: merely having the formal structure of a social practice does not mean that the description describes a practice; the knowledge engineer must determine the "recognizable patterns of action" that comprise the practices of the community under discussion (Ossorio, 1970/1981). A birthday party, for example, is not a single social practice, but several. The flame on the candle is an individual in a certain practice (the one with the name "blowing out the candles"), which may be a stage in a larger practice. This of course does not mean that frames, and their use, could not be refined to the point where they were virtually the same as social practice descriptions.

There is a further difference which needs elaboration, again having to do with use of the two concepts. The traditional use of frames has been to organize knowledge, not to represent the actions to be done (by the expert or the expert system) and determine what to do next. As noted earlier, actions are treated as implications of knowledge. Examples are R1/XCON, a system used by the Digital Equipment Corporation to

configure computer systems (Rich, 1983) and MYCIN (Harmon & King, 1984), Weilinga and Breuker (1985), and Boose (1985).

This difference is evidenced in two ways: how the knowledge engineer gathers the expert knowledge, and the form of the representations produced. The knowledge engineer using the approach of this paper begins with the actions (the practices) the person engages in. Rather than making assumptions about the knowledge necessary to engage in the practice, or about the structure of such knowledge, or about mechanisms for using such knowledge, or indeed whether it makes sense even to talk in these terms at all, the knowledge engineer begins with the most conservative question: "What can we say about it?"

This question, and elaborations, are the topic of the next section.

## THE PRACTICE OF KNOWLEDGE ENGINEERING

This section discusses how one goes about gathering information from an expert. It relies heavily on the analysis of action given in the foregoing section. It endeavors to give some organized, detailed, and useful information, of which there is comparatively little in the published literature. However, a disclaimer is in order: it does not attempt to present, nor even to indicate, a procedure (in the sense of series of steps that one do with the ordinary expectation of success) for knowledge engineering.

The knowledge engineer is a person attempting to gain information about another person's actions, including not merely the overt steps (the versions), but the necessary distinctions the expert acts on, the perspective(s) he adopts, all of the constraints covering all of the combinations of stages and all of the eligibilities, the place this practice has in larger practices, the values the expert is expressing in the practices (the choices he makes), and the language the expert uses. In short, the knowledge engineer is gaining both broad and deep insight into an area of a person's life. This is exactly the sort of endeavor in which one would expect tips, reminders, rules of thumb, and a good deal of skill to be involved, rather than a procedure with an assured outcome.

### Actor, Observer, and Critic

As the above section discusses, there are several aspects, or types, of information one must provide to describe the behavior of an expert. Rarely can one simply ask a person directly for the information, for two reasons. First, they usually cannot tell you. It is virtually always that case that a person's ability to act far outstrips his ability to describe his actions. This often seems paradoxical to expert system builders, but is a straightforward reflection of the reality of human behavior: describing

a practice is itself a second practice, and there is no reason to expect the concepts, facts, perspectives, stages, elements, eligibilities, or significance of the second to be the same as those of the first.

This difficulty can surface in a slightly more subtle form: It is not likely to be effective to ask an expert for facts and beliefs he has about a subject matter area, although this is a very common way of proceeding (Hardy, 1986).

One might paraphrase this by noting that as soon as I ask you what you are thinking, what you are thinking changes.

Since one cannot simply ask, what can one do?

A brief answer is that one relies on the distinction between Actor, Observer, and Critic (Ossorio, 1970/1981). It is not necessary for a person to observe and describe his own behavior. Rather more common is to have a different person giving descriptions, and this is the paradigm case for knowledge engineering: The expert acts, in his area of expertise, and the knowledge engineer observes and describes the expert's actions.

As he interviews the expert, the knowledge engineer uses the distinctions elaborated in the previous section to recognize where further information is needed and, more generally, to formulate a description, or representation, of the practices as the expert engages in them. The knowledge engineer then takes all the data and produces a description covering all of the information he has, in the technical format required. This description will include the practices (specified by name), and descriptions of those practices.

### Where to Begin

As with other social practices, the practice (or practices) of knowledge engineering requires a certain perspective, namely that of observer/describer of human action. This may seem painfully obvious, but in knowledge engineering as it is usually done this perspective is often confused with others. The two most common are the theoretician giving theoretical accounts involving hypothesized mechanisms, and the computer scientist giving accounts in terms of symbolic information processing. (See, for example, Firschein, 1984, Brachman, 1979, or virtually any issue of the *Artificial Intelligence Journal*).

As an observer/describer, the observable performances are to give descriptions of behavior, in this case the behavior of an expert. The facts are the observable episodes of the expert's behavior, his performances. The concepts used are those of the social practice and social practice descriptions, as articulated in above. The primary criterion by which a description is judged is whether it is an informative, useful description of the behavior; abstraction, theorizing, interpretation, and mechanistic modelling have no place in the knowledge engineer's action.

As in most interviewing situations, one begins with a simple, broad question, such as "Tell me about diagnosing thyroid problems". If the expert can respond to the question, the knowledge engineer has begun to get his data. If not, he may try a more specific question, based on his understanding of the expert's field. Frequently, a very useful technique to get started is to "mock one up", or ask the expert to pretend that a typical case has come up and then show the knowledge engineer what he does.

During and after the interview, the knowledge engineer looks for those "recognizable patterns of action" that are the practices the expert engages in. These may be observable ("Send in a report", "have the diagnosis verified", etc.) or not ("Decide how many segments to divide this program patch into", "Assess whether my subordinate is motivated by teamwork", etc.).

A technique that is frequently very useful is to begin with a request for an overall description of what the expert does. The answer to this question will typically give, by name, the highest-level social practices the expert engages in. Then, with more detailed probing, the practices that make up the stages of the higher-level practices are named. The knowledge engineer then has the task of recognizing whether there is a gap between the two levels of description he has so far and "filling in" if so.

To describe the identified practices, one describes the stages, and the versions, involved in carrying out them out. The expert, in engaging in a behavior or in talking about it, will refer, or on occasion explicitly mention, knowledge he uses: facts and data, concepts, and perspectives. Often this will be in the context in which the knowledge is used.

Thus, the expert does any of the variety of things a person does in which they use their expertise. Typically, one of these is talking about what they do, and this is most often the easiest place to start. The knowledge engineer questions, probes, requests elaboration, and prompts the expert.

A partial list of the skills that make a difference in being able to carry out this practice are knowing when and how to probe, how to prompt, how to get more detail, and how to feed back one's understanding so that the expert can meaningfully verify it. These are in addition to recognizing when a person is referring to, or doing, a separate social practice, and recognizing the various aspects of actions: Knowledge, skills, stage-option structure, and the element-individual-eligibility structure. Further, there are interpersonal skills such as being able to recognize whether the person is comfortable in the interview and being able to recognize whether the person has more to say but would like to continue at another time.

It is not clear, to this author at least, how much value some knowledge of the expert's domain is in the knowledge engineering process. It seems clear that some knowledge is valuable, for the expert may not refer at all to some area, fail to cover various cases, and so on, and in such cases the knowledge engineer is in better position to recognize the errors. What is not clear is the degree to which this knowledge can be gained in the course of interviewing the expert, or experts, and to what extent a total lack of domain knowledge hinders the knowledge engineer.

Let us consider an example:

An expert reports, "If this is a 'Type-3 failure report, then I route it to Jane, but Type-4's go to Dave in the next building".

The concept of 'Type-3 vs. Type-4 report is used; it appears in a constraint on a stage or options of a stage. (It is unclear from this fragment which is the case.) However, it is clear that some different action is taken in the two cases, so Type-3 vs. Type-4 will appear in some constraint. One does not know, at this point, Jane and Dave's roles in the practice—the elements for which they are eligible in the practice. Thus, the knowledge engineer notes several questions: (a) What are Jane's and Dave's jobs, (b) What is the informant doing by sending the report to these people, (c) Under what conditions is each of the actions taken, (d) What will Jane and Dave do with the report (that is, what practices will they engage in), and (e) What larger practice is this a stage of.

The second question needs elaboration. "Send the report" is a performance description, that is, one that gives no information as to the practice being engaged in. That practice, in turn, may be a stage of a larger practice (as noted earlier), but so far the knowledge engineer does not even know the practice. For example, it might be that Jane is the programmer responsible for the code addressed in the failure report. In such a case, "Sending the report to Jane" is the practice of "Notifying the responsible programmer of a problem". Or, "Sending the report to Dave" might be a case of the practice of "Filing an erroneous report with the Program Clerk".

Thus, having the concept of social practice, and social practice description, the knowledge engineer has a great deal of information about what to look for: the practices the expert engages in, and how the structure of those practices. Since the aspects of the social practice description have the relationships discussed earlier, recognition of one part (e.g., an item of knowledge) leads to questions about how that item is used (the constraint), and in turn the stage-options, or eligibilities, in which that constraint has a place. The social practice description can be seen as the template for the wholes into which the parts that the expert supplies fit. The knowledge engineer's task is to represent those wholes, their parts, and all of their relationships.

An additional skill the knowledge engineer must have is to be able to recognize when he has a complete and coherent account from the expert. Often he must additionally be able to recognize when he is getting

information he will be able to use in producing a useful representation, but before he has that representation in hand.

It is not uncommon to reach a point at which the expert has difficulty in further verbal description of his actions. When this occurs the knowledge engineer may ask the expert to "act it out", pretending he is actually engaged in the practice, while the knowledge engineer continues to observe and describe the actions. The knowledge engineer may play the role of another person (when one is involved in the practice of interest), asking questions as a person *in that role* does. The expert's actions then form the "raw data" for further observation and description.

The process just outlined is in many cases similar to the usual ways of proceeding in gathering information from experts. It differs in certain significant ways. First, it is neither interpretive nor self-report in nature; it could reasonably be described as "division of labor": the expert acts, and the knowledge engineer describes. However, it is crucial that the knowledge engineer have available descriptive resources adequate to the task of describing complex human action. This is the role of the social practice description; it provides a technically usable framework for representing all the facts about any human action that does not force the describer to abstract, invent, interpret, or otherwise change the content.

Second, one makes use of self-report data as, and when, it arises, identifying the actions, concepts, and skills mentioned in the report. The practices will be additional practices not yet covered, stages (or sub-stages) of other practices, or larger practices in which already known ones have a place. The concepts and skills will have a place within these practices, as discussed earlier, or may refer to additional practices.

### Experience with Social Practice Descriptions

The approach presented in this paper has been used to produce several actual expert systems. The projects ranged from highly technical practices in the construction and change of very large computer programs (Jeffrey & Putman, 1983) to the very "soft" endeavor of consulting with a manager on the people-oriented practices of management, such as improving someone's job satisfaction or getting another manager to cooperate on a project.

Proceeding in this way has been much more efficient than the more usual approaches in the area. One of the very significant costs of building an expert system is the expert's time. It is generally accepted that to capture someone's expertise in a fairly large area will require full-time involvement by the expert for several months. Experience to date is that this approach allows us to cover a comparable breadth and depth of expertise in approximately a few weeks of the expert's time.

The direct involvement by the expert is in several phases. Initial interviews typically take at most two to three hours; one to two hours is by far the typical case. After initial descriptions are produced, it may take another two to three hours with the expert to check them out for accuracy, completeness, tone, direction, and overall consistency. Further elaboration may take several more hours, in blocks of one to two hours. Close monitoring of the language of the descriptions, with the expert, may again take several more hours.

The data so far of course do not constitute a controlled experiment. Gathering more data on the time and costs of various approaches to knowledge engineering, including this one, is an area for further work.

A further advantage of this approach is that the involvement by the expert, in addition to being approximately one tenth to one fifth of the total time needed for other approaches, is not in one single full-time block. (In actual practice this is very important; experts rarely have a two-week block of time easily available.)

### Practical Heuristics

Ordinary English includes a variety of ways of expressing the distinctions one needs as a knowledge engineer. Presented here are a few of the rules of thumb and tips that have been found to be useful. The primary value of this discussion, I believe, is to alert the reader to the careful analysis of a person's language, another very important skill for a knowledge engineer. A careful, systematic study of this area would seem to be an interesting topic for further research.

**Knowledge.** Part of what the knowledge engineer relies on to recognize the concepts—the facts, distinctions, and perspectives—that play a part in the expert's actions is the expert's language.

It is common for people to use language such as "having an idea of . . .", "an image", "getting the feel of . . ." and other phrases referring to mental, physical, or emotional aspects of doing some practice. We have found that very frequently these locutions refer to an item of knowledge.

As noted earlier, often information on necessary perspectives is the subtlest, or most difficult to acquire, of the knowledge needed. Sometimes this is not the case; the informant will refer overtly to it. For example, an expert computer system designer may report, "You have to understand how the user is going to view the system." More commonly, the informant will use phrases like, "frame of mind" or "outlook".

Perhaps most common in this area are phrases that appear to be general statements or policies. One will often encounter phrasing such as, "the basic thing you are after here is . . .", or "what you are looking for here is . . .".

A useful rule of thumb is that in addition to such obvious linguistic clues as "point of view" or "outlook", consider whether the informant is referring to a perspective whenever such terms such as "overall" or "basically" are used.

This is, however, only a rule of thumb, because such terminology is also frequently used to refer to the stages of a practice, or part of it. It is also found when the informant is emphasizing the outcome of a practice, rather than its stage structure—i.e., giving an achievement description (Ossorio, 1970/1981).

Significance. Frequently one must specifically inquire for the information on the significance of a practice. It is rare to be able to ask directly, "What larger thing are you engaged in here?" Usually, phrasing the question as, "When do you do this?" or "Under what circumstances do you do this?" is more effective.

It is not uncommon, however, for an informant to give what would be answers to this question in the course of talking about it. One often hears, "Well, when I come into the picture is when . . .", or similar language. Again, there is considerable ambiguity here, because the informant may be referring simply to a stage of the practice.

Skills. There seem to be two ways in which people typically talk about skills involved in what they do. First, as they discuss what goes on as they are engaged in the practice, typically a skill will sound like a stage (that is, a separate step), but one which happens all the time and at the same time as other stages.

Second, when the informant is asked how he does one of these things, or how it looks when he is doing it, the responses tend to be, "I just do it, that's all", "I don't know what I do, I just do it", or, perhaps most expressively, a blank look.

This is an area in which it is easy to distort the informant's information if one is not sensitive to the informant's own stopping point—the point at which, for that person, there is in fact no "how". Further, this point will vary from person to person. As a person's expertise in an area increases, the number of cases in which the person simply knows how increases.

When one encounters a skill, it is not necessarily the case that there is nothing further to say. There may not be any stages involved, but there may well be knowledge. Often the expert can say a good deal in response to a question such as, "When you do this, what is important here? What do you pay attention to?" Sometimes a less pointed question is helpful in these cases: "OK, let's imagine you have one of these cases. What would you say about it?"



## OTHER FORMS OF INTERVIEWING

Knowledge engineering is certainly not the only human endeavor in which one interviews another person to gain an in-depth understanding of what he does, how he does it, and how he looks at things. A brief examination of two such areas may shed light on the perspective needed for this one.

Perhaps the most direct similarity is to journalism. A journalist must gain information from, and understanding of, the person he is interviewing that is very similar to that needed by the knowledge engineer. We believe that the reason for this is that, once again, the logic of describing a person's actions is fundamental. The knowledge engineer and the journalist both have the job of gaining this information and communicating it to others. (In fact, in the past we have preferred the term "technical journalism", due to A. O. Putman, for the enterprise we are engaged in, because it seems considerably broader and more descriptive.)

The second area with a notable similarity to knowledge engineering is one familiar to those with a psychological background: clinical interviewing. Here again is an area in which the outcome is an in-depth understanding of a part of a person's life. Many of the interviewing techniques are quite similar. In fact, we have found that background in clinical psychology and interviewing is extremely helpful in this work, due in part to the experience one gains in unobtrusively finding out how a person does things and sees things. The focus of a clinical interview is of course different, but many of the concepts, perspectives, steps one takes, and skills needed are the same.

## SUMMARY

The practicing knowledge engineer has the job of producing complete, precise, technically useful representations of human behavior. As a complete, precise, systematic formulation of the concepts of person, behavior, language, and the real world, one would expect that Descriptive Psychology would have a good deal to offer to the knowledge engineer, and the facts have borne out this expectation. In the last several years considerable experience has been gained in using the formulations of Descriptive Psychology to do knowledge engineering in a variety of areas. This paper has presented some of these formulations, and the concepts, approaches, and practices based on them.

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## **PART II**

### **NEW LIGHT ON OLD TOPICS: THE POWER OF APPRAISAL**

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# INTRODUCTION

Anthony O. Putman and Keith E. Davis

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In every issue of *Advances*, either by conscious design or otherwise, some part of Descriptive Psychology's intellectual apparatus—a concept, device or method—emerges as a unifying aspect of many of the papers. The unifying aspect of Part I of this Volume was planned; the unification in Part II was discovered *ex post facto* by the editors, the result more of luck and zeitgeist than intent. The theme is no less strong, however, for being accidental.

These seven papers are linked by the important role the concept of "appraisal" plays in each. "Appraisal", by Peter G. Ossorio, examines the concept and its usage within the Descriptive Psychological canon. Ossorio points out that "appraisal"—defined as "a description which tautologically (i.e., as such) carries motivational significance"—is one of the most widely used concepts in Descriptive Psychology. He reviews five places in which the concept of appraisal has been used: in formulations of emotional behavior, in the Judgement Diagram, in the Actor-Observer-Critic schema, in status assignment, and in the formulation of consciousness and altered states of consciousness. On examination he

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finds the use of the term "appraisal" to be consistent throughout, while noting that status assignment carries an implication of creation as well as the recognition implied by "appraisal".

Sonja Holt straightforwardly uses this concept as the centerpiece of her formulation of "Appraisal and Competence in Moral Judgement and Behavior". Holt begins by examining the three historically primary approaches to moral criticism—the cognitive developmental, the psychoanalytic, and the learning theory schools—and finds each lacking on grounds of conceptual adequacy. From this examination she formulates criteria for adequacy for any approach to understanding moral judgement (a) It must provide a descriptive account of moral judgement which is atheoretical; (b) It must illuminate a variety of questions that arise concerning moral judgement e.g., What is the relationship between cognitive and motivational components of morally relevant behavior? and (c) It must provide a non-causal account of the operation of moral judgement.

Holt goes on to formulate an account which meets these criteria, and which does justice to the domain of moral behavior and judgement. She draws on many of the resources of Descriptive Psychology in doing so: Deliberate Action and the ethical perspective, the Judgement Diagram, and the justification ladder, among others. At the core of each of these are appraisals of the situation as one in which moral behavior is at issue.

Mary McDermott Shideler continues unbroken her string of contributions to *Advances* (she has published in every Volume to date) with a paper entitled "Spirituality: The Descriptive Psychology Approach". Unlike her prior papers, which have become justly famous for the polished and elegant manner in which she brings closure to her topic, this paper raises more questions than it answers. But this is not a flaw. Shideler means this paper to be a sort of prospectus for a much longer work, indicating the ground she intends to cover, so it contains, to quote the author, "a good many IOUs". The editors are more than content with that; as her many fans know, Mary Shideler's IOUs are as good as most writers' cash.

Shideler has embarked on this course in response to her view that "contemporary spiritual practice has far outstripped its conceptual basis", augmented by her conviction that "the conceptual resources and methodology of Descriptive Psychology can give us a more adequate approach to the domain of spirituality". Her credentials on both sides of this enterprise are impeccable; she is past president of both the Society for Descriptive Psychology and the American Theological Society (Midwest Division) and a respected author in both realms. Her initial explorations here are subtle and provocative, leaving the reader ready to enlist in her exploration of the Descriptive Psychology articulation of

spirituality. Although she does not say so explicitly, her exposition strongly suggests that she views certain appraisals of the world and one's relation to it as at the core of spirituality.

The next two papers take up issues that have characteristically involved "descriptions which tautologically carry motivational significance": gender roles, and high power vs. low power. Sapin and Forward's re-evaluation of the androgyny concept turns on the recognition that everyday concerns about "masculinity", "femininity", and related notions are rooted in the practice of correction, discipline, and evaluation of other's behavior. In short, masculinity and femininity are critic terms, used to appraise behavior, not merely to describe it.

In their critical discussion of role theory, they show it to be locked in at the level of the performative aspects of behavior and thus to be expecting a too rigid connection between features of overt performance and the significance of the behavior engaged in. They propose instead a status dynamic formulation, which, by virtue of its explicit consideration of the context of the behavior, allows one to recognize and appraise properly nonstereotypical expressions of masculinity and femininity. The second aspect of their contribution is to distinguish a performative vs. a significance orientation to the making of observational judgements as an individual competence variable. They present a procedure for making this distinction and preliminary data supporting the conclusion that persons with a performative orientation are much more likely to stereotype the behavior of persons along sex-role lines than are significance-oriented subjects. This stylistic or competence variable—the tendency and ability to make significance vs. performative appraisals in the observation of other's behavior—seems to be an extremely promising variable. Three other dissertations have made effective use of this distinction: Bender's work (1983) on the appreciation of intrinsic motivation and significance, Marshall's (1980) work on criminals' appreciation of the significance of troublesome behavior, and Viniegra's (1985) on the impact of parents' tendencies to make performative judgements on their childrens' developmental disabilities.

Lathem's interesting paper deals with a specific type of appraisal—the degree to which one is self critical of one's performances—and proposes a general account of how gender and power positions in a relationship should affect the degree of self-criticism. The high-power vs. low-power distinction turns on the degree to which one person assumes the position of "initiating and terminating projects and plans, setting standards and evaluating progress" vs. "selectively encouraging, implementing, elaborating, and interpreting decisions". The former is the high-power position, and the latter, the low-power position. The participants in her study read stories depicting a man and a woman in

a high power-low power relationship completing task in a stereotypically male or female domain. In each case, the performance of the central figure was deficient in some respect and participants were asked to indicate which among several responses the person was likely to make to the criticism of his or her work. Measures of self-criticism and of rejection of the position were derived from ratings of the likelihood of each response. Latham's results were complicated, but they provided support for taking the two key variables—power relationships and gender—into account and also for the notion that the type of work was important. While women were somewhat more likely to accept self-critical statements in low power positions than were men, men and women were more likely to accept self-criticism when both the power-position and the type of work were congruent with gender-role stereotypes. Otherwise both tended to reject the position assigned in the story. This study makes an important contribution to our understanding of self-criticism and that enriches our grasp of an important type of appraisal.

The final two papers in this Volume continue a long and honored tradition: the clinical tour de force, in which the extraordinary explanatory power of Descriptive Psychology is brought to bear on a classic category in clinical psychology and our understanding of the category is overturned, reconstructed, and substantially enhanced. Among the foremost practitioners of this art is the author of these two papers, Raymond M. Bergner.

In "Impulsive Actions and Impulsive Persons" Bergner uses the power of appraisal to carry the main weight of his analysis. He begins by observing that, the paper's title notwithstanding, there is no unique, formally different type of behavior that we call "impulsive", nor is there an "impulsive" personality type or style. Instead, there are acts which we acknowledge as rational but also appraise as "impulsive", that is, as being criticizable on ethical or prudential grounds, which grounds ought to have been given due consideration prior to the act, but were not. From this starting point Bergner goes on to debunk the notion that impulsive persons have some sort of "radically different executive apparatus". He offers instead an explanation of how impulsive behavior makes sense (and how and why it is criticizable as impulsive) that is rooted in the Judgement Diagram. With this formulation in hand, he then goes on to consider some of the most common factors influencing the behavior of impulsive persons (e.g., "The individual does not take it that he has a future") and explores therapeutic implications of these. As usual with Bergner's papers, even the experienced clinician finishes reading the exposition with a sense of having acquired a new or more complete perspective on a familiar problem.



Bergner's second paper, "Father-Daughter Incest: Degradation and Recovery from Degradation", raises a core question: having experienced the degradation of father-daughter incest, what self-appraisals is the young woman inclined to make? That is, what kind of person will she take herself to be, and how will she therefore be inclined to treat herself and expect to be treated? Bergner uses the technical concept of the "degradation ceremony" as a framework for understanding incest and its effects. He postulates, from clinical experience and observation, five primary degradations resulting from father-daughter incest, formulating these in terms of the statuses acquired through each. Again, he derives valuable therapeutic implications from this analysis which are conceptually and pragmatically specific to the type of degradation actually encountered. Bergner helps us to see clearly how and why different individuals emerge from this "same" experience with very different appraisals of themselves.

The concept of appraisal is powerful, enabling skilled practitioners of Descriptive Psychology to throw new light on old topics. The seven chapters in this section are a good cross-section of its use.

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# APPRAISAL

Peter G. Ossorio

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## ABSTRACT

There is a question as to whether the use of the term "appraisal" in different substantive and conceptual contexts in Descriptive Psychology represents a single concept. The definition of "appraisal" is reviewed and a basic explication in terms of "what the situation calls for" is given. The concept of appraisal is examined in the context of emotional behavior, the Actor-Observer-Critic Schema, the Judgement Diagram, assigning statuses, objective appraisals, and final order appraisal. The various uses of the term are found to be consistent.

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# APPRAISAL AND COMPETENCE IN MORAL JUDGEMENT AND BEHAVIOR

Sonja Bunke Holt

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## ABSTRACT

Moral judgement is conceptualized within the framework of Descriptive Psychology. This conceptualization provides a set of distinctions for a systematic understanding of moral development and shows that another way to study moral development is to evaluate the extent to which persons have acquired an ethical perspective. The judgement paradigm is used to show the relationship of an ethical perspective to behavior in general, and to distinguish forms of moral dilemma and moral criticism. A competence formulation of moral judgement is presented in contrast to the traditional approaches to moral development, and four components of this competence are described. Appraisal is discussed as it relates to competence in moral judgement and behavior. Finally, this conceptualization is discussed in terms of its implications for research and a general understanding of the systematic aspects of moral judgement.

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To become and to act as "rational creatures" is something that we learn, as we learn a language. If we had not some initial capacity for it, we could never learn at all, but given that capacity, which we hopefully impute to "human nature", reasonable action, at the familiar level of good sense, is the reward and fruit of practice and discipline in those activities in which a difference between getting things right and getting them wrong can be made out by those with sense enough to make this distinction. (Murphy, 1964, p.48)

This paper is concerned with the ways in which persons develop competence in a particular form of social criticism, i.e., moral criticism. As persons develop socially and become adult members of a community, they learn the range of customary and acceptable social practices among the members of that group. Further, to make decisions regarding what they ought to do, or to know how to act in ways which are not socially incorrect or inappropriate, requires that persons acquire competence as social critics. It is the development of this competence that requires further clarification before we can expect to understand and to guide children more effectively in this regard.

Psychologists have long been fascinated with questions about moral development and how individuals come to manage whatever conflicts there may be between their personal inclinations or interests, and the various requirements of social living. There is general agreement that a child develops from a position of complete dependence upon adults for decisions about what behaviors are right or wrong, to a position of practical independence, i.e., the position of a rational person who is capable of making his or her own appraisals and acting accordingly. However, there is considerable disagreement regarding the nature or course of that development, and the ways in which that development is fostered during the lifetime of each individual.

Prior to launching another investigation, it is important to keep in mind the advice of Wittgenstein (1922) who alerted us to the possibility that our difficulty in understanding a problem may come from the way the problem is initially formulated. It appears that this has been the case with some of the investigations into the nature of moral development; some of the theories and research have been based on more or less inadequate or incomplete conceptualizations of the problem, and this has sometimes generated considerable confusion. It therefore seems important to review conceptually the phenomenon of moral behavior and to reexamine the questions that arise regarding the developmental aspects of this behavior.

It should be emphasized from the outset that this paper does not deal with moral theories, this is, with questions of which moral judgements or principles are correct or ought to have priority over others. Rather, it describes what it is for people to be competent in moral criticism and

what they are doing when they make moral judgements. This paper emphasizes that competence as a moral critic reflects (a) the extent to which a person has mastered the use of ethical concepts, and (b) a person's opportunities to have been involved in the use of these concepts.

## CLASSIC APPROACHES TO MORAL DEVELOPMENT

Most psychological research related to moral development can be classified in terms of the theoretical orientation employed by the investigator: (a) Cognitive-Developmental; (b) Psychoanalytic; and (c) Learning Theory. Each of these orientations can be further characterized by the way it organizes the facts of behavior in general, and its differential emphasis on one or another aspect of behavior. The sections which follow provide a brief description of some of the assumptions within each of these general approaches to moral development, including a description of the paradigmatic research generated by each approach.

### Cognitive-Developmental

This currently popular theoretical approach has resulted from attempts to integrate the thinking of American pragmatists with the developmental model of Jean Piaget (1932/1965). Piaget's book, *The Moral Judgement of the Child*, provided the first systematic application of the cognitive-developmental model to moral judgement. Later, Kohlberg (1964, 1969, 1976) applied the cognitive-developmental model to moral judgement in a highly elaborate classification system that includes six stages in the development of moral judgement.

Through conversations with children, Piaget (1932/1965) identified what he believed to be two major stages in moral development. The first stage he at various times referred to as "heteronomous morality", "moral realism", or a "morality of constraint"; the second stage he variously called "autonomous morality" or "morality of cooperation".

The morality of constraint develops as a result of two interacting factors: cognitive immaturity and unilateral emotional respect for adults. Piaget further elaborates cognitive immaturity in terms of "egocentrism" or "realism" as ways of characterizing the child's inability to distinguish between aspects of the self and aspects of the external world. One expression of egocentrism is the child's inability to take the viewpoint of another person in various social situations. Realism or egocentrism also includes those situations where the child cannot yet distinguish between objective and subjective aspects of experience. This is reflected in the moral domain by a tendency to regard moral rules as absolutes, rather than flexible principles.

A child progresses from "heteronomous morality" to "autonomous morality" by developing an ability to function cooperatively. The appropriate environmental structures stimulating this gradual transition are the various opportunities a child has for reciprocal social interaction. Piaget (1932/1965) holds that all children make the transition from a morality of constraint to a morality of cooperation, unless their development is retarded by the lack of such opportunities. He further maintains that under conditions of mutual respect and equality in social interchange, the developing mind cannot help coming to regard the principle of cooperation as "an immanent condition of social relationships" (p. 198). At the advanced level of development, morality is no longer regarded as the will of authority, but as a system of modifiable rules, expressing common rights and obligations among equals, a system essential to the effectiveness of any social system.

Kohlberg proposed a sequential set of stages of moral judgement in which an individual exhibits varying sensitivity to social norms and moral principles. A complete explication of these stages may be found in Kohlberg's several treatments (1964, 1969, 1976) of the development of moral judgement. Kohlberg's structural theory stresses that "movement to the next stage occurs through reflective reorganization arising from sensed contradictions in one's current stage structure" (1976, p. 51). These contradictions can arise in at least two types of situations: (1) where some form of experience or decision leads a person to recognize the inadequacy or inappropriateness of his own moral reasoning abilities, or (2) when a person is exposed to another person's moral reasoning which is discrepant from his own. In this way, Kohlberg emphasizes the interactional aspect and suggests that development will be significantly influenced by the environment's provision of various opportunities for that interaction (e.g., role-taking opportunities) and the particular level of moral reasoning represented by the social institutions in which a person has been involved.

The cognitive-developmental approach is unique in its attempt to provide qualitative descriptions of the different types of thinking a person uses. These qualitatively different types of thinking are said to represent some kind of "cognitive-structural transformation" that results from an interaction between the self and the social environment. In contrast to other approaches, the cognitive-developmental approach views this interaction between organism and environment as being of primary importance to development. They often describe this interaction as having a dynamic property of balance in which a certain drive for equilibrium predisposes a person's cognitive capacities to accommodate certain environmental requirements, and to search for a match between various cognitive expectancies and structural aspects of the environment.



In this way, the cognitive-developmental approach is a dynamic interaction scheme that portrays development as a certain, inevitable, and interactive sequence of behavior development.

For the most part, research within the cognitive-developmental approach has been designed to elaborate the various stages of moral reasoning by asking persons of different ages and cultures to respond to a variety of hypothetical moral dilemmas (Kohlberg, 1969). This research technique was designed to yield data calling for the maximum usage of the child's cognitive capabilities. The general rationale for this lies in the cognitive-developmental approach's definition of a moral act as one based on prior judgement of its rightness or wrongness. Thus, the obvious objective would be to study the higher mental processes and thought structures underlying such judgements. Most of the other research elaborates this basic research by focusing on particular issues which will provide more understanding of these cognitive "structures". For example, considerable research has been conducted to discover whether a child's level of moral reasoning corresponds to various behaviors such as role-taking behaviors (Selman, 1976) or specified prosocial behaviors (Damon, 1978).

### Psychoanalytic

For psychoanalytic theorists, a person's moral structure is regarded as the "unconscious product of powerful motives which are based on the need to keep antisocial impulses from conscious awareness or expression" (Hoffman, 1977). This follows from Freud's general view of development as an individual's subordination of his or her instinctual energies, in which subordination represents the internalization of external, social constraints, by socialization agents, practices, and institutions.

This approach, like the cognitive-developmental approach, postulates stages of development. However, in psychoanalytic theory, the emphasis is on motivational aspects of behavior, rather than on cognitive ones. The transition between these postulated stages is considered to take place early in the child's development through the "internalization" of parental and/or societal norms. As such, psychoanalytic moral theory has not emphasized interactional components in its stages of moral development as much as it focused on "internalization" aspects.

It is believed that this internalization process begins when the young child, whose pre-eminent motive is to satisfy his own drives, must be tamed by the adults of his world. In essence, the child lacks the motivation to control his own behavior, and external agents (e.g., parents or teachers) must intervene and provide such control.

The psychoanalytic theory of moral development is based on causal relationships. Adults become desired objects for the child through repeated experiences of need reduction through interaction with them. Thus, threats of losing them can provide the basis (cause) for the internalizing of various social/moral requirements.

One important way a child internalizes socially sanctioned behavior is by means of various discipline experiences. The general rationale for assuming discipline to be important is that the notion of moral "internalization" was considered to imply that a person had acquired the motivation to weigh one's desires against the moral requirements of a situation, and one's earliest experience of doing something similar to this occurs in response to parental discipline.

Guilt is taken to be the source of the standard behavioral expressions from which moral development is inferred. The treatment of guilt as a result of violating internalized moral standards, and as a way of keeping someone in line, is another one of the ways the psychoanalytic approach infers a causal connection between the cognitive and motivational components of behavior.

Based on this general set of assumptions, psychoanalytically oriented research has developed along the following lines: (a) attempting to understand moral development in terms of the guilt that results from violating socially sanctioned standards (e.g., Peck & Havingshurst, 1960; Boehm, 1962), (b) an investigation of various forms of resistance to temptation (Aronfreed, 1968, 1976); and (c) discipline methods as they relate to (a) and (b) (Hoffman, 1977; Sears, Maccoby, & Levin, 1957; and Whiting & Child, 1953).

### Learning Theory

Learning theorists view the development of any behavioral patterns in associationistic terms. That is, they view the structure of behavior as the result of the continual association of discrete stimuli with one another. Mental structures are often considered to be the result of the patterning or association of events in the world.

Following from this basic notion, it is assumed that children acquire knowledge bit by bit, as if they are constantly accumulating small pieces of information. Typically, there is no relation hypothesized between the individual pieces beyond the "associations" formed through the various regularities experienced during contacts with elements of the environment. The more complex conceptual achievements like the development of social or moral standards are also taken to happen in the same piecemeal fashion. For example, Berkowitz (1964) claims that moral values are learned in the order in which they are introduced to the child by his particular environment.

Social-learning theories of morality operate on similar assumptions. However, these theorists also talk about hypothetical processes like the internalization of cultural or parental norms. In general, learning and social-learning theorists tend to avoid specifying the ways in which the cognitive and motivational aspects of behavior develop. Typically, they tend to assume that mechanisms of learning will somehow transmit the values of the socializing agents to children. Even the more elaborate version of social-learning theory (Mischel & Mischel, 1976) does not seem to relate the acquisition of these values to a person's behavior.

The paradigmatic research design in the social-learning tradition is to use either direct or vicarious reinforcements, with minimal or no accompanying rationale, to elicit behaviors which are "good" in terms of some culturally shared standard of conduct. Various forms of research on imitation and modeling (Bandura & Walters, 1963; Kanfer & Phillips, 1970) have indicated that these processes are the ways in which a young child internalizes social standards and values.

### Critique

The preceding review of the major approaches to moral development focused on presenting a descriptive overview of various theoretical and empirical approaches related to this problem area. The present paper was stimulated in part by the recognition of various problems not adequately handled in these approaches. The following examination of those problems is designed to (a) clarify the desirability of a different approach to understanding the development of moral competence; and (b) introduce certain criteria for evaluating the various approaches to the study of moral development, including the formulation presented here.

The first problem encountered is one of comparability. Ossorio (1970/1981) has often referred to this problem among general theories of personality. This problem as it relates to theories of moral development goes as follows. First, it is taken that each approach is concerned with discovering the process involved in the development of moral judgement. That is, each theorist assumes that the phenomena associated with moral development require an explanation, so each proceeds to hypothesize the nature of a process involved. However well-meaning the effort, there is a fundamental danger involved in this sort of approach to behavioral research. If moral judgement and moral behavior were not identifiable and desirable independently of the theories, there would be no moral phenomena for these theories to provide explanations of.

A major technical problem that arises is that without a description of moral judgement independent of various theories, there is a danger that

there will be very little agreement among the various theorists regarding an appropriate description of the behavior for which each has a theory. The problem involved here is similar to the problem involved if a poet, a botanist, and a lumberjack were to try to agree about trees. The description of the same tree varies considerably as a result of the particular orientation of the person describing it. In each case, the tree remains the same, but the description varies. The resulting confusion usually has nothing to do with the phenomenon described, but is more often related to the fact that there are alternative perspectives for the describers.

The same sort of problem holds for the various approaches to understanding the development of moral judgement. Although the phenomenon under investigation is the same for all theorists, each of their descriptions is likely to be different. Each of the major approaches focuses on a different aspect of behavior: Cognitive-developmental theory emphasizes the cognitive aspect of moral behavior, psychoanalytic theory the motivational aspect and learning theories emphasize the performance aspect.

This differential focus gives each a separate perspective on the phenomenon. However, unless we have a description of moral judgement which is not also a theory about its operation, theories which each provide their own hypothetical account cannot be compared. Furthermore, without a way to compare these theories to a description of the phenomenon, there is no standard by which to appraise the appropriateness of any one theory for its contribution to understanding moral development.

Conceptual problems of this sort generate empirical problems. For example, the research on moral development is most often criticized for its lack of concern with the relationship between acquiring moral concepts and the corresponding real-life behavior. One finds frequent reference to this problem in the literature (Lickona, 1976; Hoffman, 1977; and Damon, 1978), but it appears that the direct study of this relationship is often enmeshed with the various hypothetical processes. For example, theoretical disagreement often revolves around which socialization experiences are most likely to foster the "internalization" of moral standards. The corresponding research may focus on aspects of discipline and other childrearing experiences (e.g., modeling, conditioning experiences, and role-taking opportunities) to decide if these experiences will produce the desired socially appropriate reasoning levels or reflect the "internalization" of moral standards.

Another problem emerges out of the attempt to resolve this question of the relationship between the cognitive and motivational aspects of morally relevant behavior. In looking for specific empirical evidence that

relates moral judgement to actual behavior, many researchers have attempted to demonstrate a causal relationship between the hypothetical cognitive structures (e.g., conscience, superego, stages, etc.) and various criteria such as resistance to temptation, prosocial behaviors, or indices of guilt. The psychological literature on moral judgement as well as everyday experience is filled with examples of what appear to be irresolvable problems derived from attempts to treat this relationship as causal. The best known example is the consistency with which persons at various stages of moral reasoning fail to act in ways that correspond to their level of reasoning.

In summary, an alternative approach to understanding moral judgement must meet certain criteria: (a) It must provide a descriptive account of moral judgement which is atheoretical; (b) it must be responsive to a variety of questions that arise concerning moral judgement, like providing a way of illuminating the relationship between the cognitive and motivational components of morally relevant behavior; and (c) it must provide a noncausal, or at least partially noncausal, account of the operation of moral judgement.

## A CONCEPTUALIZATION FOR MORAL JUDGEMENT

The formulation presented in this section is designed to provide a descriptive account of moral judgement and to show that another way to study moral development is to evaluate the extent to which persons have acquired a certain competence, i.e., the competence which corresponds to having an ethical perspective. This conceptual framework for moral judgement includes a paradigm case formulation (Ossorio, 1969/1978) which delineates the logical components of competence and proposes a competence formulation for our understanding of how persons develop an ethical perspective.

The acquisition of an ethical perspective is treated here as an instance of socialization (i.e., learning to participate in social practices, social institutions, and other human ways of life) where persons become competent at a certain form of social criticism, i.e., moral criticism. Paradigmatically, the extent to which persons have acquired an ethical perspective will be reflected in their level of ethical competence. This competence is exercised in four ways: (1) distinguishing conceptually between various ethical grounds of action and between ethical and other grounds; (2) recognizing circumstances for which ethical distinctions are relevant; (3) recognizing ethical reasons to act; and (4) regulating their behavior accordingly. Furthermore, each of these abilities will be variously expressed in a person's behavior as they respond to ethically relevant situations. In the following discussions, these various

expressions of the ethical perspective are treated as related, yet distinctive aspects of behavior.

Before presenting this paradigm case in more detail, it is necessary to discuss what it means to have an ethical perspective, and to show what sort of position the ethical perspective has in relation to behavior in general. This discussion will also distinguish two forms of moral dilemma and two forms of moral criticism. For these purposes, elements of a more general conceptualization for behavior developed by Ossorio (1966, 1970, 1978, 1981) will be employed.

### Ethical Perspective and the Judgement Paradigm

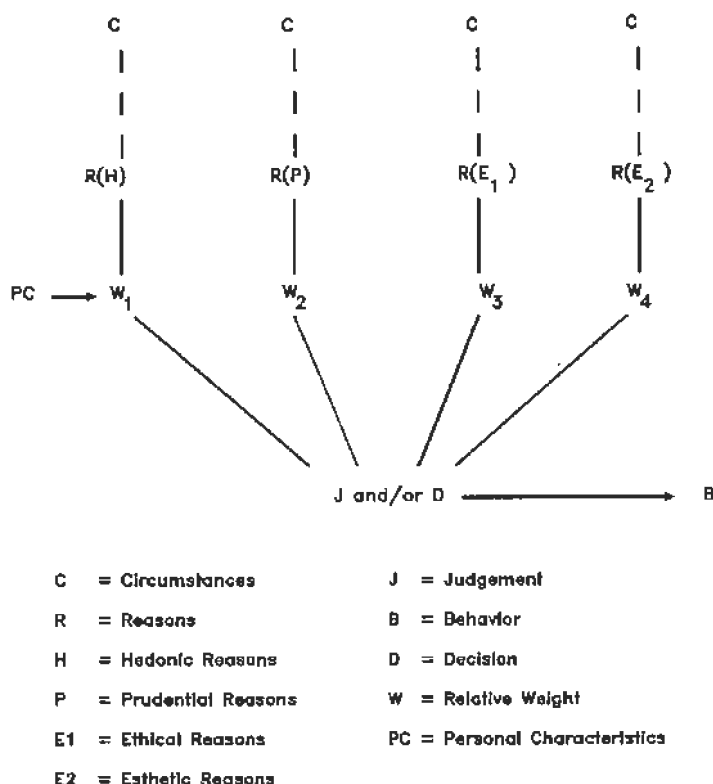
The ethical perspective contrasts with the hedonic, prudential, and esthetic perspectives. All these perspectives provide grounds for making behavioral choices. Ossorio (1976) presents each of these as the different perspectives that are, paradigmatically, always available to persons for particular choices and for self-regulation in general. Self-regulation is a general phenomenon exemplified by Deliberate Action (where a person distinguishes among behaviors, chooses among them, and enacts the chosen behavior) and codified directly by the Actor-Observer-Critic schema (Ossorio, 1970/1981). More specifically, having an ethical perspective implies that a person is able to distinguish and choose behaviors in ways that indicate an understanding and an appreciation of ethical questions.

Ossorio's (in this volume) paradigm formulation for judgement is a device for reconstructing a behavior as a case of Deliberate Action. It allows us to reconstruct any behavior for a better understanding of the deliberate action which has taken place (or could have, etc.). This formulation, represented in the Judgement Diagram (Figure 1), also demonstrates that the ethical perspective is only one among several perspectives that normatively come into play in behavioral choice and self-regulation. Finally, it can be used to portray any behavior that involves the ethical perspective in making judgements of what is the case, and/or deciding of what to do under a variety of circumstances. Portraying behavior in this way will help to clarify the significance of the four competence expressions involving the ethical perspective.

#### *Judgement (I)*

"Judgement of what is the case" is used here to refer to those situations where a person recognizes the circumstances (C) as providing reasons (R) for doing or not doing one thing rather than another. A judgement that is characteristically a moral judgement will specifically involve recognizing the ethically relevant facts in a situation which

Figure 1. Judgement Diagram



provide reasons (E<sub>1</sub>) to act accordingly.

Judgement actually involves only the cognitive aspect of a behavior (i.e., recognition and discrimination) and is not directly observable. One connection between judgement and an observable behavior would be the verbal behavior where a person states what he believes to be the case. However, the verbal behavior only expresses some of the content of a particular judgement, i.e., whenever a person states what he takes to be the case, he is not articulating all the things he could distinguish, or is distinguishing that case *from*. Similarly, if a child only states that lying is wrong, we do not know if the judgement is based on prudential reasons (e.g., the fear of being spanked for telling a lie) or on ethical reasons (i.e., it is wrong or unfair to lie to another person). Upon inquiry, it would be possible to identify some of the relevant circumstances providing reasons for an individual's judgement, decisions,

or behavior; however, there is no way to determine that we have identified all of the reasons providing the content for any judgement.

The foregoing serves as a reminder that it is not logically appropriate to equate moral development, moral judgement, or moral conduct with merely the verbal behavior of expressing an appraisal, or with various behavioral choices that may or may not appear to be ethically motivated.

### *Weights (W)*

The notion of relative weights is included in this formulation to help account for (a) some of the observed variations in moral judgements which one person may demonstrate on separate occasions (including at different ages), or (b) the differences we observe among different persons or groups of persons when they act from the ethical perspective. In any situation, a person's decision of what to do or say will reflect the relative weights attached to circumstances and corresponding reasons (both pro and con) revealed by all four perspectives.

Circumstances, providing the reasons to do something, differ from one occasion to the next, and a person's decision of what to do reflects the relative weights given to each of those reasons. For example, consider a situation where a person is asked to play golf with friends during a time when he has an appointment to meet with his son's teacher. He is a person who enjoys playing golf and usually plays whenever he gets the opportunity. While he would prefer to be playing golf, when it comes to keeping the appointment with his son's teacher, playing golf carries less relative weight when there are competing commitments.

In general, the relative weights reflect the way a person perceives a situation, and his sensitivity to its relevance will, in turn, be influenced by his person characteristics (PC), such as: (a) his particular moral point of view (e.g., a particular ethical theory or religious dogma) which consists of having certain principles or rules for resolving ethical dilemmas, and (b) his particular experience in situations involving the use of those principles and rules.

To summarize, the notion of weights provides at least four things to consider in accounting for the individual differences observed in the moral decisions of either different persons in the same situation, or of the same person on different occasions. Each of these four can influence the relative weights that particular reasons carry with a given individual. For each person, on each occasion, the types of reasons may be differentially weighted as a result of: (1) a person's perception of the circumstances; (2) that person's sensitivity to the relevance or



implications of these circumstances; and (3) a person's person characteristics, including having a particular set of moral principles or rules for deciding among conflicting reasons, and (4) a person's prior experience in morally relevant situations.

### Forms of Moral Dilemma

With the judgement paradigm in mind, it is possible to envision at least two general forms of moral conflict: (1) cases in which there are conflicting ethical reasons ( $E_1$ ), or (2) cases in which there is conflict between ethical reasons ( $E_1$ ) and other kinds of reasons, (i.e., hedonic, prudential, or esthetic ones). For purposes of clarification, the first sort of problem is referred to here as a "purely moral", and the second as a "morally relevant" dilemma.

A "purely moral" dilemma may be exemplified by a situation in which a person is in conflict between his duty to the social order and his duty to his family. For example, a person may have to decide whether to steal food or to allow his family to starve. In this case, a person has at least two conflicting ethical reasons: (1) it is wrong to steal, and (2) it is wrong to neglect the duty to provide for one's family.

A situation which typifies a "morally relevant" problem may occur when a person is torn between his obligation to treat other persons fairly while also desiring to advance his financial status. For example, a person may be in a position to embezzle funds from a charitable organization. In this case, a dilemma arises because of several conflicting relevant reasons: (a) it is wrong to take what belongs to someone else (ethical reason), however, (b) the extra money would be nice to have for purchasing certain material comforts (hedonic reasons), but then (c) it would be personally disadvantageous to be caught and punished (prudential reasons).

Distinguishing these two general forms of moral dilemma will help to eliminate potential confusions in understanding a person's ability to make the kind of appraisals required in moral criticism. One such confusion is that some appraisal terms may have both ethical and aesthetic applications, e.g., something may be the ethically right (judicious or fair) thing to do, and it may be the aesthetically right (correct, or appropriate) thing to do. In other cases, these concepts may have applications in all four domains. Establishing this distinction between "purely moral" and "morally relevant" dilemmas, allows us to avoid the problems involved with confusing various uses of moral concepts, as, for example, the confusion in the moral-development literature generated by treating resistance to temptation as an ethical problem when it also includes hedonic and/or prudential aspects.

### Forms of Moral Criticism

At this point, note that if we were to evaluate a person's ethical competence, there would be at least two targets: (1) we can criticize the extent to which a person has mastered the specific aspects of the ethical perspective ( $E_1$ ), or (2) we can criticize the weights ( $W$ ) a person attaches to ethical reasons. The first is a criticism of competence; the second is a criticism of character. Using the Judgement Diagram, note that the criticism of competence occurs at the position of reasons ( $R$ ), and the criticism of character occurs at the positions of weights ( $W$ ) or person characteristics ( $PC$ ).

When criticisms are made of a person's moral character, it is primarily a criticism of the weights he has attached to the different reasons for certain behavior choices. If we regard someone as having a bad moral character, we are typically talking about his tendency to act in ways that ignore or disregard opportunities to act in ways that give an appropriate emphasis to ethical reasons. A person judged to be of good moral character tends to be someone whose behavioral choices appear to give appropriate emphasis to ethical reasons. Those persons seen as ethical fanatics are typically persons regarded as inappropriately giving too much weight to the ethical grounds for action, while minimizing the importance of other grounds (e.g., hedonic, prudential, or esthetic) for behavior. In some cases, a person's moral character can be criticized in so far as he appeals to ethical reasons primarily for prudential concerns, i.e., in an effort to enhance his status by using ethical reasons for instrumental purposes.

Consider also a situation where a person is asked, "Is it wrong to treat another person unfairly?" Conceivably, the answer could be forms of "yes", "no", or "not always". Answering affirmatively suggests a person recognizes a certain conceptual relationship between the concepts "unfair" and "wrong". This would reflect competence in the use of the ethical perspective ( $E_1$ ). A negative answer may imply a competence deficit, that the person fails to see these concepts as related. However, something else is indicated when a person states that it is not always wrong to treat a person unfairly. He may cite an example where it would be right that he failed to keep an appointment because he stopped to help an accident victim on the way to the appointment. Although this person may have the ethical competence to recognize the conceptual relationship between the concepts of "wrong" and "unfair", and recognizes an instance of failing to keep an appointment as unfair, he also has the competence, appreciation, or understanding required to give appropriate priority ( $W$ ) to other relevant reasons in deciding upon a certain course of action.

Because there are times when circumstances indicate that it may be right to do something that is wrong (e.g., certain acts of war or self-defense), some persons regard such instances as providing a rationale for taking a position of ethical relativity and/or ethical nihilism. In the present approach, however, such phenomena merely remind us that we will more fully appreciate the significance of the ethical perspective for social criticism if we recognize the distinction between conceptual mastery and the competence to give appropriate weights.

A situation involving self-defense, for example, does not eliminate our use of the ethical perspective. Harming someone is wrong and provides ethical reason to avoid doing so, but recognizing the situation as a case of "it's either him or me" provides a prudential reason which may be appropriately stronger. Recognizing that the decision to harm someone who is threatening you may be the right thing to do, does not necessarily indicate that one is ignorant of the conceptual relationships that exist among the relevant ethical reasons (i.e., that you have an obligation to be fair in your dealings with other persons, that it is wrong to harm another person, or that it is unfair, etc.). Instead, it points out that in some circumstances, ethical reasons can have more or less weight than certain hedonic, prudential, or esthetic reasons.

Instead of deciding that ethical questions are unresolvable, these distinctions point to the necessity of looking at more than just (a) the behavior, (b) the verbal report, or (c) the knowledge of moral concepts in assessing any person's moral competence. These distinctions also emphasize that at any point, we will only have access to a partial description of a person's competence. With these cautions in mind, the following section delineates the components of moral competence. This conceptual framework is designed to help us account for some of the potential variations, as well as the similarities among people in their acquisition and use of an ethical perspective.

#### A Framework for Ethical Competence

It is in the nature of any social system that there is a certain regularity, stability, and consistency in basic beliefs, in values or norms, and in the way its people treat one another. It is also the case that this regularity, stability, and consistency is intelligible not only to the participant-observers of a certain social system, but also to an outside observer who is a member of another social group. For there to be this kind of regularity within and relativity among social systems, one would expect that certain elements are fundamental to the way all social practices are organized. Also, these elements will be somewhat independent of the particular content attached to them in the variety of beliefs and lifestyles within and across social systems.

This conceptualization suggests that the kind of systematizing that occurs in social behavior is somewhat analogous to the kind of relativity and regularity found among the various systems of measurement. In a metric system of measurement, for example, there is regularity within the system of measurement whether one is using centimeters, meters, or kilometers (i.e., 100 centimeters equals one meter and 1,000 meters equals one kilometer, etc.) in measuring length, width and height. In using the English system of measurement, there is also regularity among the same measurements using inches, yards, or miles. Additionally, the measurements in one system are relative to the measurements in the other system (e.g., 2.54 centimeters equals one inch, etc.). These features of measurement make it possible for anyone to understand another person talking about the length, width, or height of a table whether one is using either the metric or the English system of measurement. Similarly, a person from a social system where certain forms of behavior are considered fair or just should be able to understand the significance of forms of behavior considered fair or just within another social system. This should be the case even if the same behavior considered fair in one system is considered unfair in the other. To take an extreme case, if a person from a midwestern American community visiting a particular group of Native Americans learns their equivalent terms for the concepts of "wrong" and "unfair", he could use those terms in his appraisals of their social practices. For example, this person might communicate to members of this community, his belief that their practice of leaving elderly members of the group behind to die while the tribe moves on to new territory was wrong. Although members of this community may not agree with his appraisal, they would be able to understand what the person was doing by saying that it was wrong or that he saw it as neglecting a duty.

In the present approach we regard moral development as the acquisition of a particular range of competence. Note that this contrasts with treating it as the acquisition of certain habits (Eysenck, 1976); as a process like internalization (Hoffman, 1977; Aronfreed, 1976); as a hypothetical construct like superego, conscience, or developmental stage (Freud, 1938; Boehm, 1962; Kohlberg, 1964; and Piaget, 1965); or as a more or less sophisticated way of talking about moral dilemmas (Kohlberg, 1976).

As the development of a competence, moral development can be compared to the way in which any other competence (e.g., reading or mathematics) is acquired. In effect, we are using a general socialization/education model. For example, before a decision is made as to how well a child reads, there must be agreement on (a) what would count as being able to read, and (b) what it takes to be able to read (e.g., spelling, word

recognition, etc.). Similarly, the requirements for evaluating a person's ability to use an ethical perspective include: (a) a relevant description of what counts as moral competence, and (b) an accounting of the components involved in moral competence.

To meet these requirements, we make use of a paradigm case formulation of moral competence that includes four components: (1) knowledge of the network of ethical concepts that are tautologically linked to one another; (2) the ability to recognize instances of behavior that exemplify these concepts; (3) the use of these concepts in reasoning, justifying, or negotiating for or against behavioral choices that involve the use of these concepts; and (4) actions, other than the verbal behavior, that give these concepts appropriate priority. Paradigmatically, the standard for what counts as moral competence or as having an ethical perspective is the person who demonstrates normative abilities in all four of these forms of expression of moral competence.

### *Knowledge of a Network of Ethical Concepts*

Having a set of concepts provides a way to differentiate one thing from another. In art criticism, for example, the distinctions of harmony, balance, and coloring differentiate aspects of a particular painting, and also help to differentiate certain paintings from others. In moral criticism, the ethical concepts like "duty", "obligation", "just", "right", etc., are used to differentiate the ethical aspects of behavior so that we can distinguish and compare social behaviors.

It is important to emphasize that critic concepts, like the ethical concepts, refer to ways of comparing behavior and not to a particular behavior. In art criticism, referring to the beauty of a painting is a way of classifying that painting in order to distinguish it from others; it is not a reference to an additional attribute of the painting itself that we would call its beauty, harmony, balance, etc. In like manner, if we appraise a certain behavior as wrong or unfair, we are using these concepts for comparing that behavior to others, and not for specifying a quality that is inherent in that behavior.

In a related way, it is important to recognize that there is no behavior, per se, that is necessarily an unfair or wrong behavior. Just as the movie critic talks about X behavior as dramatic, comic, or tragic, in doing this, he is not referring to a particular behavior, but to behavior that occurred under certain circumstances. Or, to take another example, in playing bridge, a "brilliant" defensive strategy may involve the behavior of leading a trump while on other occasions the same behavior might be appraised as "stupid". Thus, to appraise any behavior is to look at what else is going on at the time. Appreciation of this aspect of moral

concepts helps to point out that competence at moral judgement is more than learning to attach terms like right, wrong, fair, unfair, etc. to specific behaviors. That is, a person must also understand the distinctive use of the various moral concepts, which includes knowing the ways each concept is related to others within that system of concepts.

To master the use of a system of ethical concepts requires that a person be able to use them in some of the ways that reveal his awareness of certain tautological relationships among these concepts. For example, a competent bridge player knows the interrelationship among the concepts "trump", "suit", and "bid", when he knows that in order to play a trump, he must play the bid suit. This is to say that without these related concepts, the concept of trumps would be meaningless. Similarly, the concept "just" is meaningless without the related concepts "right", "wrong", "fair", "obligation", etc. Recognizing that a person is unjust, in his dealings with X, is also to recognize that he is wrong, unfair, neglecting an obligation, or violating X's rights.

This does not necessarily mean that for a person to be competent, he is required to know that the relationships among these concepts are tautological. Instead, it is suggesting that the tautological connections are an essential feature of knowing, understanding, and appreciating the concept. To understand a concept is also to understand the related concepts, and this understanding will be reflected in the person's actual use of the concepts. Thus, in assessing a person's understanding of concepts, certain behaviors will demonstrate his understanding of the related concepts. For example, most persons would agree that a person who plays a trump by randomly selecting cards from his hand does not understand the concept of trumps. In this case, the person seems unaware of the relationship between trumps and the bid suit. Likewise, a person who does not recognize that unfair treatment of another person, e.g., cheating, is also wrong or bad, does not fully understand the concepts of unfair, wrong, or bad.

### *Recognition of Instances*

Instances where ethical concepts apply are found every day in a variety of social practices. A person refines his ability to use ethical concepts with practice in making and acting on decisions which hinge on these distinctions. Thus, participation in social practices appears to be an important factor in learning to recognize circumstances for which ethical distinctions are relevant. Refinement in the use of ethical distinctions will also be expressed in a person's ability to recognize new or unfamiliar exemplars of situations where ethical concepts apply.

Extending the analogy between competence at playing bridge and competence at moral criticism helps illustrate the use of ethical concepts in this way. Merely knowing the concepts of hearts, diamonds, or trumps and their interrelationships is not a sufficient condition for competence. A person must also be able to recognize situations involving the use of each of these concepts and know when they are appropriately employed. If a bridge player did not recognize an opportunity to trump an opponent's trick, his competence at bridge playing would be seriously questioned. Similarly, a moral critic must be able to recognize those situations where a moral concept applies, i.e., if a person is unable to recognize that breaking a promise is in general a case of wrongdoing, we could certainly doubt his moral competence.

### *Reasoning*

Sometimes the very nature of a subject matter invites differences in judgement. Whenever we use an appraisal concept, we are using it in only one of the variety of situations to which it applies. Also, we are using it in a way that reflects the relative weights attached to those circumstances which we have identified. In most situations involving competence expressions, demonstrating a competence does not require an ability to justify the use of relevant concepts. Typically, it is only necessary to recognize the situation as one where the concept applies and to act accordingly. For example, a tennis player expresses competence at tennis when he recognizes an opponent's drop shot and rushes to the net to save his point. It would be unlikely that anyone would challenge a description of the situation as a drop shot or as one that called for a person to rush the net. However, when the competence involves a form of appraisal, the situation can be somewhat different.

Descriptions of situations as ones where an appraisal concept applies, as in moral criticism, require a person to use concepts that are "essentially contested" (Gallie, 1955/1956). To appreciate the essentially contested quality of critical concepts, Gallie lists certain characteristics which apply to the use of these concepts. Three are particularly relevant to this discussion: (1) these concepts are appraisative in the sense that they signify some form of valued achievement; (2) this achievement can be modified considerably in light of changing circumstances; and (3) different persons or groups of persons may adhere to quite different views regarding the correct use of these concepts.

Thus, understanding appraisal concepts necessitates using them to signify value, and recognizing their application in a variety of situations. At times, the various uses of these concepts by the same person or by different persons may appear contradictory. In this event, it is up to the

person using the concept to be able to modify the appraisal in light of different circumstances or to justify the use of a concept according to the circumstances that he considered relevant. It follows that one avenue to evaluating a person's mastery of the ethical perspective is to ask him to justify his use of a particular concept in an appraisal, or in guiding a behavioral choice which was based on that appraisal. Note that this is not to say there is nothing but individual relativity in the use of appraisal concepts. However, it does allow for the systematic variation we often see in the use of these concepts.

### *Acting on the Basis of Ethical Concepts*

Finally, for a person to be competent at moral criticism requires that he also be able to act in ways other than merely verbal that give ethical reasons appropriate priority. If the bridge player could recognize when it was appropriate to play a trump, and could also provide adequate justification for or against playing trumps at a particular time, but continually failed to trump when given the opportunity, his partner certainly would have reason to question his competence to play bridge. In like manner, we would also question the moral competence of a person who demonstrated verbal knowledge of ethical concepts, could recognize moral situations, justify his use of the concepts in particular appraisals, but failed to act in other ways that gave ethical reasons appropriate priority.

A common problem among the various approaches to moral development is the inability to resolve questions concerning the relationship between the cognitive and the motivational aspects of moral behavior. For years researchers have looked for specific empirical evidence that would relate moral judgement to real-life behavior. Usually, researchers in moral development have attempted to validate certain cognitive aspects (e.g., stages of moral reasoning, conscience, superego, etc.) by considering the performance of certain behaviors (e.g., resistance to temptation; indexes of guilt; sharing; or various other pro-social behaviors) as caused by the various cognitive "structures". Instead of asking how thoughts, fantasies, and impulses get translated into action, or how a person's actions become translated into thought, it may be more illuminating to contrast the concepts of "thought" and "action" in a different (noncausal) way.

This conceptualization provides a response to that problem from a different angle. For these purposes a review of the concept of appraisal as elaborated by Ossorio (in this volume) is especially relevant. Appraisal is a fundamental concept in Descriptive Psychology because



it is one of the essentials for human behavior. The familiar definition is: "an appraisal is a description that tautologously carries motivational significance" (1969/1978). As discussed in the preceding section, ethical concepts are appraisative in the sense that they signify some form of valued achievement.

As motivationally significant, the notion of appraisal includes a feature of behavioral self-regulation, i.e., a first person reference. Appraisal refers to the various ways persons specify their relationship to other elements (e.g., persons, objectives, circumstances) of their world. In effect, appraisals are evaluative, i.e., they are ways each person evaluates these elements as they relate to *him*. Assigning value or appraisal is the same thing as having reason to act. For example, if a person (X) appraises a situation as one where he has an obligation to take care of Y, then X recognizes that *he* has reason to act on Y's behalf.

Since appraisals correspond to a person's having his own reasons for action, the use of concepts in appraisal is central to any discussion of intentional action or rational behavior. Furthermore, understanding the use of the ethical concepts (e.g., justice, duty, obligation, etc.) as appraisals is particularly relevant for understanding this particular form of rational behavior, i.e., ethical behavior.

In summary, for a person to be competent in moral judgement is for him to master the various uses of the set of interrelated ethical distinctions. Mastering the use of these distinctions implies being able to use these concepts appropriately when the situation calls for it. Opportunities to use these concepts are of three distinct kinds: (1) situations where a person must recognize instances of behaviors where the concept applies; (2) situations where a person must justify the use of these concepts in a particular appraisal; and (3) situations where a person acts on these concepts in ways other than verbal behaviors.

Two features of this paradigm case help clarify developmental aspects of moral judgement. First, these four components of the paradigm case of moral competence are like having a set of coordinates to use in the assessment of a person's development of competence as a moral critic at any point in time. Secondly, this paradigm case of moral competence provides an anchoring device that establishes an endpoint to the developmental sequence under investigation. Having such an endpoint, and a set of conceptual coordinates for moral development, allows us to decide (a) how much of this particular competence a person has mastered, (b) what sort of expertise or deficiencies a person has in this domain, and (c) how one person compares to another in his ability to make moral judgements and/or decisions.

### Implications

A child ideally develops from a position of completely depending upon adults and the social environment to provide information on what forms of behavior are ethically right or wrong, to the more independent position of a rational person who is capable of using the ethical perspective in making his own appraisals of right and wrong and acting accordingly. Identifying the different forms of experience in a person's life which are conducive to the development of the four components of moral competence is fundamental to our general understanding of moral development.

It is not until a person has the competence to use ethical concepts as appraisal that moral judgement can be distinguished from the rote learning of various rules or principles. In responding to the developmental question of how a person comes to use concepts as appraisal, this formulation suggests that with participation in a range of social practices, a person gets practice in acting on ethical distinctions. As such, participation provides a paradigm case for what it takes to develop an ability to use ethical concepts as appraisals rather than as mere descriptions.

With developmental considerations in mind, certain features of this set of four competences are worth noting. First, considering the variety of experience and lifestyles to which different persons are exposed, there are no obvious reasons to think that everyone would acquire these competences in the same way. Secondly, there seems to be a certain interactional relationship among these four components which facilitates the over-all development of this particular competence. That is, it is unlikely that a person completely masters one aspect (e.g., tautological relationships) and then moves on to master another (e.g., recognition of instances). On the contrary, it seems quite possible that any change in one aspect will lead to changes in another. For example, a child may accidentally do something which a parent identifies as right (or just, or fair, etc.), and that experience may variously (a) enhance his concept of "right"; (b) increase his repertoire of situations which he would recognize in the future as "right"; and (c) increase the likelihood that he will in the future perform that or a similar act again.

In conclusion, the framework for moral competence presented here provides conceptual access to ways by which persons acquire an ethical perspective. Using this formulation of moral development for empirical investigations into ways by which children acquire moral competence seems warranted for a variety of reasons: (a) The logic of acquiring competence suggests the possibility of there being systematic differences in competence acquisition. These differences are likely to be related to

a number of individual differences, including age and experience. (b) Because it seems unlikely that anyone would master this or any competence all at once, it would be informative to identify some of the various antecedents and sequences among the various ways that different persons come to acquire the four competences involved in the skill. (c) The formulation of moral competence presented here also suggests that it is possible to encourage or facilitate the development of moral competence by discerning some of the conditions (i.e., participation in social practices) which provide a person with the opportunity and experience to use that competence. (d) Because one person could vary from any other person in these ways, it would add to our understanding of the differences among people, and of an individual's particular developmental progress, if we could articulate moral development in terms of the extent to which that person has demonstrated mastery in the various aspects of moral competence expression, or in terms of their opportunities to engage in the use of that competence.

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Address: 5305 Tabor Street, Arvada, Colorado, 80002.

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# SPIRITUALITY: THE DESCRIPTIVE PSYCHOLOGY APPROACH

Mary McDermott Shideler

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## ABSTRACT

My reading in the domain of spirituality, and my acquaintance with people who have embarked on that way of life, have persuaded me that contemporary spiritual practice has far outstripped its conceptual basis. As a result, further spiritual development is being curtailed, as the progress of astronomy was curtailed by Ptolemaic cosmology. As a contribution toward remedying that deficiency, I present here a Descriptive Psychology articulation of the spiritual domain, an exploration of how we know it, and a discussion of some of the specific problems associated with the study of spirituality and the life of the spirit.

This paper, which I hope will eventuate in a book, has a limited purpose: to indicate the ground that I intend to cover in the longer work, and to suggest the general direction that I plan to take. It will not provide a detailed map of the territory. It contains, therefore, a good many IOUs, and I say this without apology. It is *that* kind of paper—a

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general survey of problems in the context of Descriptive Psychology—and not some other kind.

My investigations began with the conviction that the contemporary practice of spirituality has far outstripped the conceptual articulation of the domain itself, so that further development of both its theory and practice is being curtailed very much as, once upon a time, the development of astronomy was curtailed by Ptolemaic cosmology. To illustrate: with very little effort except for the physical labor, my collection of books on spirituality could be rearranged on their shelves into two groups: the first, those which offer experiential access to the domain of spirituality, and the second, those which offer formal access.<sup>1</sup> Among the first—the experiential—would be classics such as Augustine's *Confessions*, *The Cloud of Unknowing*, and more general books such as Rahula's *What the Buddha Taught*, Shah's *The Way of the Sufi*, Clasper's *Eastern Paths and the Christian Way*. These are written for "insiders", that is, for those who have already tasted, if not drunk deep, of the wine of spiritual living.

Experiential access, however, is closed to those who have not at least started on that way, and many people either have not, or have at one time begun and then dismissed the enterprise as at best irrelevant or at worst pathological. If such "outsiders" are to approach this domain at all, it must be by formal access, that is, by an explication which makes it intelligible to persons who have not experienced a meeting with a transcendent Other, or who have not been able to bring their experience into coherence with the remainder of their lives.

The formal approaches that I am familiar with commonly take off from a philosophical, theological, or psychological base which do make spirituality more accessible, but often only to outsiders who are already persuaded by those doctrines—for example, of process philosophy or Jungian psychology. One who is not so persuaded, however, may very well conclude that spirituality per se is indissolubly tied to that particular philosophy or psychology; hence he may well be even less inclined than before to investigate spiritual phenomena formally or explore them experientially. Spirituality does have philosophical implications and psychological and theological dimensions, but it is also characterized by concepts and relationships that are peculiar to itself, and thus are not accessible through any other discipline or domain.

I am embarking here on a pilot project to see if the conceptual resources and methodology of Descriptive Psychology can give us a more adequate approach to the domain of spirituality, specifically, a formal access that will provide "everything needed for an explicit, systematic delineation of [the] phenomenon in its various aspects" (Ossorio, 1981/1983, p. 14). The object of the enterprise is two-fold: to enable the



"outsider" to understand what is going on in the spiritual domain, and to provide for the "insider" a fresh approach to the domain, thus opening the possibility of facilitating further developments in the practice of the spiritual life.

As a preliminary, it may be necessary to make clear the distinction I am making between spirituality and religion. The concept of religion embraces institutions, doctrines, ethical prescriptions, social practices, rituals, and so on, all of which are—in principle—informed by spirituality. But spiritual living, although it is a social phenomenon, can occur without being institutionalized, and without doctrines, ethical codes, or rituals. Only rarely will religion enter into my discussion except tangentially or by implication.

By "spirituality", I mean paradigmatically a relationship which a human person consciously enters into with an ultimate, transcendent Other, be it a person or thing or state of affairs. The relationship may be taken to be that of the finite with the infinite, the creature with the creator<sup>2</sup>, a human child with a divine parent, the relative with the absolute, these being only a few of the possible models. For convenience, I shall refer to this person, thing, or state of affairs simply as the Other—capitalized. It is to be understood as a place-holder concept, which can hold such content as "God", or "the energy that pervades the universe", or "a state of blessedness" or "nothingness", or a wide variety of other contents which are likely to be specified differently by different traditions and, within traditions, by different individuals.

First, I shall propose an articulation of the domain of spirituality, using the method of parametric analysis. Second, I shall inquire into how we know that domain, and third, I shall deal with a few of the specific problems that arise in connection with the study of the life of the spirit.

My plan is to treat spirituality as a range of facts which in principle is no more inaccessible than any other range of facts, e.g., scientific, philosophical, psychological, or historical. Second, I am taking it that fundamentally, what constitutes spirituality is not a special kind of experience, "religious" or "mystical" or whatever, but a relationship between persons and that which is transcendent. The experience of a relationship is whatever it is: compare the experience of a relation between friends, or between a teacher and a student. The spiritual relationship is between individual persons or a group of persons and some transcendent person or thing, or some state of affairs, and how that relationship is *experienced* is not definitive.

## I

In order to keep my presentation to a tolerable length, I shall merely summarize two general topics that are fundamental in Descriptive Psychology. The first, comprising a parametric analysis of the domain of spirituality, is based primarily on material that is easily available, notably the transcript of Peter Ossorio's seminar *Positive Health and Transcendental Theories* (Ossorio, 1977), and his lecture "Religion without Doctrine" (1978). In them, he specifies three parameters which, when the domain in question is the real world ("the state of affairs that includes all other states of affairs"), are called the "transcendental concepts": totality, ultimacy, and boundary condition. To these I have added three which are peculiar to the domain of spirituality: transcendence, eternity, and holiness.

This articulation of the domain of spirituality can be compared with a coordinate system. A logically adequate coordinate system will provide formal access to all the possibilities for the territory in question, and will provide all the essential dimensions and none that are non-essential. What we have here is a logical structure which is a kind of coordinate system, with the six parameters as the six coordinates of the system, thereby allowing places for such logical possibilities as the transcendent, eternity, and other aspects of spirituality. Using it, we can investigate the possible facts inherent within the domain without being committed to whether any of them actually exists. Once we see what the possible facts are, we are in a position to decide what are the actual facts. This is of considerable practical, as well as theoretical, importance because apparently many people reject spirituality as a fact because they do not understand how it is possible in principle.

We can use this logical structure to differentiate spirituality from other domains, and at least provisionally, to differentiate complete and mature forms from incomplete, deficient, and defective forms. For example, a form which rules out the parameter of transcendence or holiness in advance is deficient in that respect because it eliminates the possibility in principle, thereby denying us the opportunity even to examine the idea. One which substitutes an infinite extension in time and space for eternity is also formally defective, and so is one that identifies mundane achievement with ultimate significance.

To suggest only two of the very practical applications of this approach: first, here we have guidelines for assessing whether a phenomenon such as a distress is, on the one hand, basically spiritual or with spiritual implications for the sufferer (ourselves or another), or on the other hand, whether it is basically a philosophical, psychological, physical, or other malaise. Second, when it is spiritual, in principle we can specify with considerable precision which concept the defect or deficiency is

related to. Is the person living in a narrow and cramped world, a tiny totality that excludes—let us say—any recognition of the transcendent? Or is he determined to stay immersed in immediacies, and is not willing to press on toward an ultimate? Or is he tormented by the conviction that his mundane life is meaningless, and has never conceived of the possibility of its having an eternal significance? Or is he haunted by a meeting with the Other but has no framework to relate that experience to, no knowledge of others' experiences, and no idea what to do—if anything—about his? Are diverse traditions such as the Judeo-Christian, the Buddhist, the Islamic, the Hindu, the primitive, all really saying the same thing, as many people contend? This way of articulating the spiritual domain—not simply as presented in this paper but developed in more detail—can provide us with a way of making comparisons that are as neutral, objective, and without prejudice as is possible. And we can generate descriptions of different forms of spirituality by identifying the values that each assigns to these concepts. The coordinate system does not answer these questions. It does remind us that there are such questions, and it may help us to answer them.

## II

If we take it to be the case that spirituality is constituted by a relationship with a transcendent Other person, thing, or state of affairs, the question inevitably arises, "How do we know that Other?"

Let us begin by taking a step back. Given the nature of the relationship, whether we take our model to be that of the infinite with the finite, the absolute with the contingent, the creator with its creature, a divine parent with a human child, or whatever, apparently there are some people for whom a relationship with a transcendent Other would be difficult if not impossible to establish under normal circumstances. For example, if, as I have proposed elsewhere (Shideler, 1985)—following numerous authorities—an elemental response to meeting the Other is wonder, then someone who for whatever reason is immune to wonder will be handicapped in knowing the Other. Possibly such persons are natively deficient, as some people are born blind or color-blind, or deaf or tone-deaf. Or they may merely be conceptually undeveloped. Children, for example, can have an experience of the holy but not know what it is, and therefore dismiss it. Any of us, at any age, may have been told so often and so emphatically that anything pertaining to the spiritual is illusory or stupid or childish or pathological or impossible or unscientific that we have sealed ourselves against even conceptualizing it. Then there are those who have been frightened or repelled by an early meeting with the Other, as well as those who are so immersed in

the mundane that they are indifferent to anything beyond it. And, of course, we find those who have so often seen hypocrisy, power-plays, and apathy presenting themselves as "spiritual" that they regard all so-called spirituality as fraudulent. And let us not forget certain ones who, having translated spiritual concepts into those of philosophy or psychology, conclude that nothing remains that can properly be designated as "spiritual" (cf. Bridgman, 1938, pp. 269-270).

There remains an immense number of people in every historical period and every human culture for whom their relationship with the Other has been meaningful, and often that which gave their life its meaning. They *know* the Other. How do they know it?

Again to take a step back: how do we know the mundane world? Remember Maxims 6 and 7: "A person acquires facts about the world primarily by observation, and secondarily by thought", and "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" (Ossorio, 1969/1981, pp. 32-33).

We observe that this cup has a given shape and size and color, that it clicks when we set it in its saucer, that it contains lukewarm, sweetened tea. We find that outside, the wind is howling and the clouds are threatening. Likewise, there are moments when we find that we are in the presence of something utterly Other than ourselves, ultimate, transcendent, timeless, holy. We may or may not see, hear, touch, smell, taste anything extraordinary. We may or may not identify it as a person, a thing, a state of affairs. What we do have is experiential knowledge that a transcendent Other is *there*, or *here*. This awareness is one of the fairly common ways that people know the Other. It can be compared with other fairly common experiences, like being aware that somebody across the room is watching us, or that another person is in the house although we do not see him or hear his movements. We may not be able to demonstrate conclusively to anyone else that our experience is veridical. But for that matter, neither can we demonstrate conclusively that the objects across the room are a chess-board and chess pieces, and that the persons manipulating those pieces are playing chess.

Another parallel comes from our perception of something as beautiful. I shall not repeat here C. S. Lewis's masterly argument, in *The Abolition of Man* (1947), against the thesis that in such cases we are not perceiving, but merely projecting our own reactions upon that to which we are attributing beauty or Otherness or holiness or whatever. Or to take yet another example, we may perceive—as Dante did—that a young woman walking down the street is transparent to the Other: she is at once wholly herself and the means by which the Other reveals itself. We may meet the Other in a hospital room, a cathedral, a bar, or through

a person, a thing, a conjoining of ideas, a strain of music. Still another way is in a dream or what we attribute to a dreaming state, as Jacob's dream of the ladder. And the meeting may be sudden and decisive, or a slowly developing awareness, or so much a part of our whole life that we take it for granted.

The circumstances of the meeting are too various to catalogue. The fact that a meeting has taken or is taking place is undeniable. But *what* is being met? A figment of the imagination? A hitherto unconscious aspect of ourselves? A projection of our desires or fears? An extrapolation from our mundane experience? A fantasy? As an alternative to these and numerous other ingenious philosophical and psychological explanations, let us recall Maxim 1: "A person takes it that things are as they seem unless he has reason to think otherwise" (Ossorio, 1969/1981, pp. 28-29). And what does seem to be the case is that the meeting with the Other, and the consequent participation in a relationship with it, is a meeting and relationship with something that is as real as the objects, processes, events, and states of affairs that we meet in our everyday, mundane going to and fro in the earth, in that like them, it imposes reality constraints on our behavior. We cannot—at least in the long run, and usually not in the short run—order it or them around. You may remember the aphorism, "The mark of the real is that it resists our will."

The knowledge that we have been considering up to this point is of ultimate significance, goodness, holiness, fulfillment, order and meaning. Less often recorded is the knowledge of its opposite, of ultimate meaninglessness, evil, depravity, destruction, uncleanness, symbolized in one tradition by the head of Medusa which blasts whoever looks at it, and in another by the presence of Satan, whom only to see face to face is everlasting torment. This also is spiritual knowledge, that is, of ultimates, totalities, boundary conditions, and of the transcendent, timeless, and unholy. There is a widespread belief that all spiritual knowledge—and for that matter, all spiritual living—is intrinsically uplifting, but history attests that this is not the case.

In brief, what the spiritual person knows is, fundamentally, all things under the aspect of eternity. Whatever else he knows in the domain of spirit is secondary and, in all likelihood, a reflection of his religious heritage and commitment, and therefore needs to be examined separately, in a study other than this one.

### III

Let us turn now to more specific problems within the domain of spirituality, to see if through Descriptive Psychology we can achieve

formal access to them. The first that I shall reflect upon here is the concept of "the will", which has reference far beyond the spiritual life. I include it because of its importance in spiritual writings, and because as far as I know, there has been no analysis of it yet in Descriptive Psychology. Second, I shall inquire into the teaching common to a great many religious traditions, that one must die to the world, and deny one's very self, in order to live spiritually. Third, I shall point out a few of the dangers which especially threaten the person who embarks upon the life of the spirit.

In my reading on spirituality, no terms have been more difficult for me than "the will" and "will power". It is usually clear what phenomena they are referring to, but the terminology reflects a faculty psychology that I am uncomfortable with, not least because the admonition "strengthen your will" has never made much sense to me. It sounds too much like the exhortation to strengthen a particular muscle by exercising it, but I could never locate a will or identify what exercises would be effective. So let us re-examine the phenomena to which "the will" refers, taking as our paradigm case a situation that is simple and familiar. We recognize that we ought to do something; we do not want to do it; yet we do it anyway. In the paradigm case, we have strong reasons to do what we ought to do, but our reasons for not wanting to do it are also very strong. When we do it anyway, in the old language we "exercise our will". In Descriptive Psychology language, we give one motivation priority over other, conflicting motivations, when our reasons for doing what we do not want to do are even stronger than our reasons for doing what we do want to do.

Our reasons for doing what we ought to do may be reinforced by what we might call "second-order reasons", such as our having promised someone that we would do this. And there may be a further reinforcement: "I'm not the kind of person who allows his pleasure (or self-interest or whatever) to interfere with doing his duty". In such second-order reasons, our self-concept is involved, what in earlier times was called our honor. Variants on second-order reasons are—among others—our promises to ourselves, and vows (here "promises" is too light a word) to a transcendent Other. Any of these can be essential ingredients in episodes of doing what we do not want to do.

Conversely, there are the equally familiar times when we are doing what we want very much to do, and persist in spite of serious obstacles—frustrations of our efforts, temptations to deviate, disparagement from our associates, illness or weariness. Again we have a motivational conflict, and again the struggle may be sharp. We ask ourselves, "Do I *really* want to do this? . . . *Should* I want to do this? . . . Is it worth the hassle? . . ." Sometimes we decide that it is; sometimes

we decide that it is not. Either way, we organize our priorities. And this kind of persistence in the face of obstacles is one of the important aspects of what we mean when we talk of determination or "will power".

Lest we fall into the trap of over-simplification, we need to remember that only rarely do we face a situation where the strongest motivation straightforwardly wins out. Sets of motivations—motivational structures—are too complex to admit of so simple a solution. Our "wants" and "oughts" are not discrete like beads on a string; they are interrelated like the elements in a work of art. And, as in creating a work of art, there are no rules for ensuring that we shall do it right, that is, that we shall achieve an organization of our motivational priorities that is right for us in our circumstances. What we have instead are guidelines to help us avoid going wrong, or to suggest how to correct what has already gone wrong. Characteristically, these guidelines take the form of double negatives, and here I shall limit myself to one example.

When we say of a person that he has "a strong will" or "great will power", part of what we mean is that he is not fragmented, cleaving to mutually contradictory values or pursuing mutually exclusive ends. Whatever he wants, knows, and does is held together without internal dissension or behavioral incongruity. He adheres in his personal life to the traditional directive, "A place for everything and everything in its place". This does not, or should not, imply a kind of tunnel vision or a narrowing of interests. Some of the officially canonized saints, and a great many of the uncanonized (Blaise Pascal and Dag Hammarskjöld come immediately to mind), have had very wide-ranging intellectual and social interests, and have engaged in a variety of very practical pursuits, but ultimately, all these were systematically related to each other by being related to the one thing. Wide-ranging though these persons were in what they knew, wanted, and did, yet they were not fragmented. Everything they knew, wanted, and did was integrated by being understood as *sub specie aeternitatis*, that is, as related to the transcendent Other, and if not as implementing that relationship, then certainly as not antagonistic to it.

Not to be fragmented involves almost always, some degree of simplification, the stripping away of what is irrelevant and constraining, as you or I might free ourselves from restrictive clothing when we want to swim or run. Often this is subsumed under the heading of asceticism, a subject on which we shall do well to listen to G. K. Chesterton:

Asceticism, in the religious sense, is the repudiation of the great mass of human joys because of the supreme joyfulness of the one joy, the religious joy. But asceticism is not in the least confined to religious asceticism: there is scientific asceticism which

asserts that truth is alone satisfying; there is aesthetic asceticism which asserts that art is alone satisfying; there is amatory asceticism which asserts that love is alone satisfying. There is even epicurean asceticism, which asserts that beer and skittles are alone satisfying . . . [Omar Khayyam] makes a list of things and says that he wants no more; the same thing was done by a medieval monk. (Chesterton, 1921, pp. 59-60)

#### IV

Two kinds of simplification are of special importance for spirituality: renouncing the world, and renouncing the self. We see them displayed most clearly in those who have entered the monastic or the eremitical way of life, but they are not by any means limited to such persons. One can forsake the world while still living and being very active in it. For an explanation of this seeming contradiction, let us turn to the Justification Ladder:

##### Perspective, Competence

Principle  
Theory  
Custom  
Judgement

It seems to be characteristic of people who are deeply spiritual that their reasons for doing whatever they do—and reasons are potentially justifications—are in general referred not to custom, theory, or principle, but to the perspective that corresponds to the domain of spirituality, and to the ethical and esthetic perspectives. In contrast, many of the religiously-oriented tend to appeal to customs such as traditional ways of performing rituals and organizing institutions, to theories such as how to instill those traditions into children, and to principles such as are embodied in theological and ethical doctrines.

Because the mundane world has a place within the domain of transcendence, there need be no fundamental fragmentation involved in combining a spiritual way of life with mundane activities, any more than there would be in combining an overriding commitment to a vocation of scholarship or business with an avocation of playing golf or embroidering. Each domain has its own integrity which we cannot violate and still function well within it. What is at stake here, however, is not what goes on within the domains themselves, but the relationships of those domains with each other.

Thus the spiritual person who is active in the "marketplace" of mundane work does not violate the methods and standards of that work as long as he is engaged in it. Charles Morgan suggests an illuminating



parallel: "When we play a game, we love to win and hate to lose; we don't stand aside in cold indifference but struggle passionately with every energy of body and mind; yet the struggle is unreal; another and deeper life continues independently of the game, and survives it and is not affected by it" (Morgan, 1932, pp. 334-335). Abraham Heschel puts it in another way: "to work with things of space but to be in love with eternity" (1963, p. 48). Teresa of Avila, one of the greatest of mystics, was also an able administrator and astute politician, performing those functions according to the received secular rules. Dag Hammarskjöld was probably the most effective Secretary-General that the United Nations has ever had.

Our self-concept is the summary formulation of our status, our place in the world. Renouncing the mundane world, we no longer have our primary place there, and thereby we renounce—forsake—deny—the selves that we have hitherto been. When we do so as a condition for living spiritually, we achieve a new status within the domain of transcendence, and thereby a new self. If this seems remote or obscure, we can look to what happens in purely mundane circumstances when, instead of our renouncing the world, it renounces us, so to speak. A radical change takes place in our world, such as the death of someone close and dear to us, so that the world itself is not what it was, and consequently our place cannot be what it had been. We suffer what is often called a "little death", and must to that degree be "born again" into a new status. Living in a new world compels us to be new persons. Much more, the change from a mundane to a transcendent orientation compels us to die and be reborn.

"Dying to oneself" has sometimes been interpreted as the kind of self-abnegation that "consists in thinking oneself a worm" (Williams, 1958, p. xlv), or alternatively, as subservience to someone else's demands—becoming what one of my friends calls "an early Christian doormat". According to my observation, however, neither of these is viable, much less commendable. As Dorothy L. Sayers justly says, "To subdue one's self to one's own ends might be dangerous, but to subdue one's self to other people's ends was dust and ashes" (Sayers, 1936/1960, p. 428). This last is another sort of thing altogether, impelled by social, religious, ethical, or other reasons which may not (and often, I suspect, do not) have any transcendent reference at all. How do we distinguish between these two kinds of self-loss? In the same way that we recognize in ourselves and others the difference between forced servitude and gracious, loving service.

## V

The dangers inherent in spirituality follow from the very nature of the spiritual life. Thus the appeal of the spiritual person directly to perspectives, skipping the lower rungs of the justification ladder, can explain his readiness to depart from custom and so on, and to ignore or reject commonly accepted ethical rules or precepts. What some spiritual persons have instead is an ethical sensitivity that may lead them to break new ethical ground—e.g., to see that slavery is wrong, or that lepers should be cared for instead of ostracized, or, remembering the dark forms of spirituality, that the unorthodox, instead of merely being cast out of the community, should be tortured until they recant or die. Very frequently, however, such an appeal to perspectives (e.g., to "the will of God") leads spirituals into trouble with those religious and secular authorities who hold to custom, theory, or principle, or to one of the other perspectives. History is replete with instances of their battles and sometimes burnings.

Not infrequently, spiritual persons run into another kind of danger. For the most part, the adoring disciples of advanced spirituals are not competent to encourage wisely, any more than their detractors are competent to diagnose and prescribe accurately. Therefore the great spirituals tend to be isolated from their peers, which is dangerous. Teresa of Avila and John of the Cross had each other, and Evelyn Underhill and Baron von Hügel were close friends for many years, but I know of few other instances where notable spirituals had the ongoing companionship of people who were equally competent spiritually. And both Teresa and John were nearly hamstrung by spiritual directors of less spiritual competence than they.

Farther down the scale of spiritual development are the myriads who, lacking or refusing direction, descend into abysmal aberrations "under the guidance of the spirit". Indeed they may be under the guidance of a spirit, but being unskilled in the discernment of spirits, they can easily fall victim to a spirit of confusion or destructiveness or evil. An interesting parallel can be drawn with the adolescent-type rebellion against customs, theories, and principles, and the elevation of self-interest or pleasure, narrowly conceived, into the primary reason for choosing any behavior.

Apart from peer isolation, the greatest dangers for the spiritual are likely to result from corruptions of his relationship with the Other. All those which I shall mention here—and I can do no more than mention

Merely to have a clear relationship with the Other can generate pride, or to use the Greek term which is more precise, *hubris*, as on the mundane level, a person can puff himself up for being the friend of some famous person. Special forms of this are the holier-than-thou syndrome, and the conviction that having such a status gives one special privileges.

Hubris can lead further. It can result in the claim to be exempt from the social and ethical restrictions under which "ordinary" people live. A prime example comes from the history of sorcery. For an easily available and frighteningly vivid portrait of such a person, see Simon the Clerk in Charles Williams' *All Hallows' Eve*, or Sir Giles Tumulty in *War in Heaven* and *Many Dimensions*.

Conversely, persons can end up being—in the old phrase—"devoured by the god", absorbed into the Other until they become all but incapable of choice. They are less than servants or slaves, merely automatons or perfervidly fanatic.

Other dangers arise from mistaking the nature of the relationship. We take it to be cozily friend to friend, or helpfully parent to child, or benignly ruler to subject, then discover that it is instead—for example—Creator to creature, or Infinite to finite, or Absolute to relative: between us is an awful and awe-filled distance. The Other cannot be confined within the categories of our human relationships, and we bring It or Him or Her or They down to our level at the risk of destroying the relationship. Remember the Relationship Change Formula: "If the behavior of X vis-a-vis Y is *not* an expression of the relationship which holds between them, then that relationship changes in the direction of one for which the behavior that *did* occur *would* have been an expression" (Ossorio, 1970/1981, p. 71). Moreover, if we take the relationship to be merely an enhanced form of our human relationships, we are likely to be thrown off our course, if not shattered, when we discover that it does not conform to our expectations—and almost certainly it will not: "My ways are not your ways, saith the Lord."

The last danger that I shall mention here is that once the relationship with the Other has been established to a certain, if indefinable, degree, one cannot with impunity withdraw from it. Why this condition obtains, I do not know, but it seems to be inherent in the nature of the transcendent Other. I do not say that it is impossible to withdraw, only that apparently we cannot turn back from life in the spirit to a purely mundane life without paying a price that is higher than for abrogating purely human relationships, or for—let us say—going back to our state before we were able to read.

Each of these dangers can be matched with a holy achievement that looks very much like it. The spiritually-grounded person may have a confidence that can be mistaken for pride. He may indeed be called by the Other to perform a certain task, and by virtue of that be endowed with special powers, and with a special authority over those who would deter him. Or he may obey the Other so closely and sensitively that he seems almost a robot although he is not. And so on down the line.

How can we tell whether another person—or we ourselves—are on the path toward sanctity or the diabolic? We cannot—infallibly. We have a few guidelines but that is all. "By their fruits ye shall know them" is one, but the tree may not bear its fruit—good or evil—for generations. Or to give a trivial illustration, the quality of the fruit may be appraised by persons who judge an orange by the criteria for an apricot. Another guideline is whether the life and teaching of the spiritual person has, recognizably, a place within some culture and tradition. The radically idiosyncratic is always suspect because it is not subject to the discipline of a community or tradition. And I say "has a place within", not "in agreement with", deliberately. Teresa could and did defend her position by citing Scripture and the Christian tradition, although she interpreted them in some ways that were alien to her time and place, and were considered obnoxious by certain of her contemporaries to the point where she was accused of heresy. She is now, by papal decree, a "Doctor of the Church". Judgement by the person's peers would be desirable, and probably as close to guaranteeing a correct appraisal as we could get, but where are the peers? How do we who are not spiritual geniuses appraise a genius, or even determine who would be competent to judge whether he is indeed a genius or merely a crackpot?

Yet judge we must, if we are not to follow blindly whichever among them shouts the loudest, or if we are not to dash frantically from one to another of the self-styled prophets. With intelligence, common sense, a critical but not cynical attitude, and patience not to be hasty in our judgements either pro or con, we cannot guarantee accurate descriptions and appraisals, but we are less likely to fall into grave errors than if we neglect those disciplines.

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## NOTES

1. On the other side of the room are books not having to do with spirituality as such, but which offer what I call "imaginative access", principally novels, stories, and poems that evoke a sense of "Otherness". They contribute toward preparing us to become open to the Other, and to recognize it, by making us aware of the possibility of an Other without requiring us to commit ourselves to its being a fact. For many children, the first awakening to such concepts comes through fairy tales, or books like C. S. Lewis' *Narnia* series. For adults, it may be fantasy literature such as J. R. R. Tolkien's *The Lord of the Rings*, or science fiction, or movies like *E.T.*, and *Star Wars* and its successors, or theological thrillers such as the novels of Charles Williams.

2. On the relation of the human creator of art to his human creation, and of the light which that throws on the relation of the divine creator to the human creature, and vice versa, see Dorothy L. Sayers, *The Mind of the Maker*.

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# A STATUS DYNAMIC FORMULATION OF SEX ROLES: PUTTING SEX ROLES IN THEIR PLACE

Corlis R. Sapin and John R. Forward

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## ABSTRACT

One major problem with theories of androgyny as alternatives to traditional sex role approaches is that androgyny is still defined in terms of traditional sex role descriptors. A Status Dynamic approach to sex differences is presented that accounts for both sex-typed and non-sex-typed behavior as an alternative to current efforts to describe non-sex-typed behavior as a mixture of sex-typed behaviors. Several critical distinctions between the concepts of status and role are discussed, and a reformulation of the concept of sex role as part of the more comprehensive concept of status is suggested. Preliminary research is presented which assesses the importance of distinguishing between the Significance and Performance parameters of behavior in appraisals of sex-differences.

The concept of "traditional sex roles" and related research has been useful in understanding how a large number of people actually treat

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gender differences in our society (Ruble, Frieze, & Parsons, 1976). But what of the people who do not use traditional sex role expectations as a cognitive template for interpersonal and social behavior? The concept of "androgyny" has been developed as one way of describing non-sex-typed behavior (Bem, 1974, 1977) and has advanced thinking in this area in a number of respects (Spence & Helmreich, 1978). However, there are several drawbacks to the concept and related operationalizations that limit its usefulness.

One major problem that Sandra Bem (1981) has raised is that androgyny is still defined in traditional sex role terms. What is needed is a conceptual reformulation that accounts for both sex-typed and non-sex-typed behavior rather than attempting to describe non-sex-typed behavior exclusively in sex-typed language.

Another problem is that current measures of androgyny are fairly obvious (face-valid) for many college students nowadays. There is a growing tendency for students to give lip-service to egalitarian ideas (Helmreich, Spence, & Gibson, 1982) and to avoid appearing to be too sex-typed in their responses to the tests. This has resulted in a growing percentage of students who rate all characteristics on the tests (M and F) as highly characteristic of themselves.

To meet the need for a conceptual reformulation we will present a distinction between status and role based on the conceptual resources of Descriptive Psychology (Ossorio, 1981). The distinction is presented at some length by Sapin (1979) and Roberts (1982) and is briefly summarized by Forward (1983). The following formulation provides for a more comprehensive account of sex differences in behavior than that provided by conventional sex role theories. The Descriptive Psychological concept of status permits more distinctions and discriminations to be made about actual behavior than the role concept as conventionally defined. In this formulation, the term "sex role" will carry its conventional definition as; "a set of culturally (group) prescribed or scripted gender-related behaviors", to clearly distinguish it from some uses of role that are close to the concept of status as used here.

The first section below will elaborate upon some important distinctions between the concepts of status and role. The next section will then consider relationships between the concepts of status and role since they are not mutually exclusive but are part-whole relationships. The third section will apply the formulation specifically to current sex role theories and to contemporary research and/or thinking about sex differences in behavior. The final section will summarize some preliminary research.



## DISTINCTIONS BETWEEN STATUS AND ROLE

*Status assignments and negotiations involve choosing among potentially appropriate behaviors to exemplify a given significance, whereas conventional role scripts preclude choice.* We frequently use the word "role" when we are talking about plays. Since some elements of plays are characters, roles, and plot, we will use the relationships between those elements to elaborate on the description of roles. We will begin with the concepts of character and role. A character in a play has a role to enact. The actions of a character are all meaningful with respect to a specific act and the plot. When a role is defined for a character, specific actions pertaining to the real life activities in which that sort of character would participate are selected for the character in the play to perform in his or her role. For example, a character in the role of a mother might be shown in activities with her children. In the play, as contrasted with real life, the specific activities are already selected by the author from the very large set of possible activities a mother may engage in with her children.

The real world (which includes the dramaturgical world) has many more distinctions to be made about people than a play can make about characters. Thus, an analysis of roles in the dramaturgical world alone will not give us a comprehensive description of what people do in the real world although it can serve as a useful illustration of some aspects. The main reason there are more distinctions to be made in the real world is that we are all involved in the real world as actors, paradigmatically choosing among alternative behavioral options on the basis of reasons (Ossorio, 1985). In contrast to the real world, the actors are working from a script and can't choose their behaviors from among the options which would be present in a real life situation corresponding to the situation portrayed in the play. In real life, we don't have that sort of predetermined script. Of course actors have some influence on their roles as they can choose how to enact the written lines to produce a given effect, but ultimately they must adhere to the script.

Just as the dramaturgical use of the concept of role is useful for understanding some uses and limitations of the psychological terms "sex role" or "sex scripted behavior", the concept of character in a play is a starting point for elaborating the concept of status. *Assigning a status or enacting a status can be compared to being a particular character in a play for which no script has yet been written.* This is sometimes done in "freeplay" or practice where an actor is assigned a character and asked to engage in the kinds of behavior that specific character would do. The actor will then choose various options and versions of behavior

appropriate for that kind of character, much as we all do in everyday life.

The distinction in Descriptive Psychology between the Performance and Significance parameters of behavior is useful for an elaboration of choice of behavior options (Ossorio, 1981, Silva, 1983). Performance is the observable activity as given in the second half of the observation that: "It was his turn to cook the dinner and he burnt it to a crisp." The Significance of this performance (or any other isolated performance description) is not immediately clear since there are many possibilities. Technically, the Significance is given by the more comprehensive behavior description that the dinner-crisping performance may exemplify. For example, the cook may claim it was an accident and assign himself the status of careless or unmindful person. On the other hand, his spouse may assign the cook the status of hostile person who burnt the dinner to punish her for spending too much money. There are many more possible significances and corresponding statuses that might be either claimed or assigned for this performance, and given the differences stated in this case, a lot of status negotiation could be done. A possible accommodation might be for him to re-describe the significance as a case of motivated clumsiness and for her to re-describe it as a clumsy attempt at revenge. After all, he has to eat it too.

In contrast to status accounts, sex role theories attempt to directly tie performances to prescribed significances without any intervening negotiation among the parties involved as to the significance of the performance or the status claims/assignments involved. In traditional sex role theories, a male's burning the dinner is to be expected since domestic cooking is automatically assigned a feminine significance and any red-blooded male would not be caught dead engaging in such activities. Conversely, a female who burnt the dinner would automatically be assigned the status of incompetent wife, lover, or mother and would be dealt with accordingly. After all, domestic cooking is taken conventionally to exemplify female nurturant activity.

In sum, status accounts treat status claims and assignments for particular performances as choices that participants make about the significance of the performances and corresponding statuses. The choice may be among different significances for the same performance (as in the case above) or for different ways to act on or exemplify the same or shared significance. Role accounts preclude the aspects of choice and negotiation in behavior by assuming a one-to-one correspondence between particular performances and given significances or statuses.

In actual social intercourse, status negotiations and sex role ascriptions can be contrasted in terms of behavior potential. In this formulation, as in many others, sex roles are treated as specific, concrete characteristics

and expectations that are routinely ascribed to a person solely on the basis of gender. As such, sex roles are highly restrictive of behavior potential in that they ignore the actual characteristics of people, the significance of their behavior and the circumstances or context of their behavior. In Descriptive Psychology, personal status is a summary term for a person's *place* or *standing* within one relationship or a whole set of relationships. In these relationships, people assign each other (and negotiate) statuses with respect to: (a) what kind of people they are, (b) what *that* kind of person can be expected to do, and (c) how they are to be treated in everyday interactions. To the extent that status assignments are made taking into account the actual characteristics and competencies of the person and the actual circumstances involved, then behavior potential is maximized in the relationship, group, or community. In sum, conventional sex roles limit choice and restrict a person's behavior potential, whereas status negotiation requires choice and negotiation among behavior standards and options and can therefore increase behavior potential.

*Status descriptions can be applied to any kind of relationship between people. Role descriptions cannot.* For example, it makes some sense to speak of the role of a mother or parent. There are some conventional behaviors (e.g., feeding children, dressing them, etc.) which are generally an accepted part of being a parent and can be described as the role of the parent. There are also, however, many things a parent could do, which are not conventional parenting behaviors (e.g., breaking down barricades), but one could say, "under these circumstances, it makes sense for a parent to do that". A lot of what parents do is describable in conventional role terms even though such descriptions may miss much of the subtleties.

Some social statuses do *not* carry with them roles in terms of conventional behaviors that one is expected to perform. In the case of "a friend", some behaviors will be fitting while others will not, depending on the kinds of people involved and the nature of the friendships. Therefore, instead of talking about the role of a friend in terms of conventional behaviors one must perform (which would be impossible to do sensibly) we talk about the experience of being a friend. Similarly, we can talk about the status of being a friend although there is no one distinctive set of acts to define this status. Friendship is a type of relationship, not a set of prescribed behaviors (Roberts, 1982).

A person who attempts to assign specific roles to friends will soon discover that this behavior is likely to be taken as a violation of the status of friendship. This may account for a common observation among young women that it is easy to find "dates" among men they know but hard to find friends. Dating behavior is most often defined by

conventional sex roles and is easier to enact for young men who are uncertain as to how to treat young women or who simply have "one track minds".

Since any relationship can be described in terms of status but not conventional roles, and since some statuses include roles but not vice-versa, status descriptions are more comprehensive accounts of behavior than role descriptions.

*The distinction between status and role corresponds to the distinction between being and doing.* The contrast between status and role corresponds roughly to the contrast between *who you are* and *what you do*. To separate who you are from what you do, we must talk about how and why people do what they do. In a status formulation, a person is described paradigmatically as acting deliberately on his/her observations, reasons and judgements about his/her and others' behavior. Although we have been talking mostly about behavioral performances, in one sense status is entirely independent of behavioral performances in that status assignments have the character of appraisals or decisions (e.g., choice of significance and status) and are not mere observations or descriptions of some "external", "objective" reality.

The appropriateness of a given behavior and even *which* behavior it is depends on the status of who does it. For example, when a minister says, "I now pronounce you husband and wife", what he does is a different behavior (has a different significance, is given a different status) than if the man off the streets does it. Similarly the locution, "I love you", takes on different significances depending on the status of the speaker, e.g., your lover or a used car salesman.

These examples of status assignment clearly demonstrate that the same performance or sets of performances (roles) can be taken to have very different significances or meaning depending on *who* is doing it, i.e., depending on the status of the actor and relevant standards of judgement. By contrast, role accounts provide performative descriptions without any reference to the status of the person or people performing. This is somewhat like trying to describe a play to someone by describing acts without any reference to characters and relations among characters. It would be impossible. Yet, this is what a conventional sex role description is—a list of abstracted characteristics and acts assigned only to gender categories. Role theories provide no place formally for status dynamic considerations and as such provide little or no information about the variety of ways that people behave in real world settings.

*Status assignments involve the application of "standards of judgement" to behavior. Role attributions involve matching observable performances to conventional (objective) norms.* The notion of a standard of judgement is crucial in talking about the difference between statuses and roles as

accounts of the behavior of people. We can elaborate on the notion of standards by referring to perspective, i.e., how a person "sees" the world, what he/she takes to be a given set of facts which makes his/her world coherent. Alternatively, we can talk about how a person's standards will be expressed in what he/she counts as being a case of those facts. When we talk about statuses, we are talking about relationships with corresponding behavior potential, e.g., mayor, mother, relative, friend, etc. Having a particular status, e.g., mayor, mother, etc., means that what a person does will be judged as appropriate or inappropriate according to whatever standards of judgement are assigned to that status. Thus, it is the status assignment, e.g., mayor, that determines the standard of judgement for evaluating what a person does (e.g., as successful or as a failure) and also for determining *what* behavior that behavior is. Whether or not the mayor's behavior is appropriate for a mother is irrelevant to judgements of his/her behavior as a mayor. A comparable point can be illustrated in judging a tree a failure because it doesn't get people from one place to another; that is, judging a tree by the standards appropriate for a car.

The granting or maintaining of a status for a person is contingent upon his/her meeting standards of judgement for the appropriateness of his/her behaviors in that status. For example, a mayor who spanked constituents who disagreed with him would probably be judged as behaving inappropriately as a mayor and lose that status quickly. Similarly, a friend who acted in a hostile way persistently would probably not be accepted or treated as a friend for long.

While a change in status necessarily includes a change in corresponding standards of judgement, it may also be the case that a change in standards may lead to a change in status. Consider the heuristic of "spitting on the sidewalk" (Ossorio, 1976). It's a common saying that you can't legislate morality or that you can't prevent people from spitting on the sidewalk by passing a law i.e., changing the legal standard. That is misleading, however, in the sense that whereas yesterday people were merely spitting on the sidewalk, if we pass a law making it a felony, then today they are committing a crime. It is tempting to say "But you haven't changed their behavior one bit." But we have changed their legal status. One day they are innocent citizens, the next day criminals. Furthermore, not only have we changed how the behavior is counted, but we are now committed to prosecute them for violating the law we have passed. Changing the standard simultaneously changed their status and the way the very same set of performances are evaluated and treated by us.

Such difficulties often arise in relationships where one of the partners changes his or her standards of judgement for what counts as "loving" or

simply tolerable behavior in a relationship. Consider a wife who has been sensitized to the female-degrading implications of much male sexual humor through a consciousness-raising group. Her previously "decent husband" who occasionally lapsed into telling "dirty jokes" might now be treated as a "chauvinistic male who makes no attempt to hide his contempt for women".

Although this might be an extreme case, it is noted that if the participants treated the conflict in terms of status dynamics, many possible satisfactory outcomes could be negotiated. The differences in values, standards, circumstances, and significances could all be recognized and negotiated either verbally or otherwise. However, if either party treated the differences solely in terms of conventional sex role attributions, no resolution would be possible. The respective behaviors of the spouses would be locked into prescribed scripts that would make negotiation next to impossible (She being a typical complaining woman and he a typical insensitive male.).

In status assignments, judgement of success or failure in meeting standards can be either normative or individual. In that way, we can make anybody a success, a failure, or almost anything else (including a friend) by introducing new standards and thereby committing ourselves to treat them accordingly. That is, success and failure (and other status assignments) have meaning only within a social context, i.e., when people judge behaviors by some standard.

In contrast, for sex role attribution, what seems to correspond to the concept of standard of judgement is the matching of observable performances to some "objective" normative standard that is taken to be independent of the people making or receiving the role attribution. ("This is the way things are", "have always been"). In practice, however, the "objective" source is an appeal to conventional standards, which implies that a more illuminating term for this use of "objective/subjective" might be conventional/nonconventional. Thus it seems that the terms "objective" and "subjective" in role theory (Biddle & Thomas, 1966) merely obfuscate the issue which is that people must observe and judge by standards of some sort. The "objective" source or observer that confers "truth value" is a hypothetical construct which some role theories have perpetuated in line with parallel notions of science (Ossorio, 1985).

*Status descriptions take into account all major parameters of behaviors. Role descriptions are based on performative parameters only.* In role theories as well as other positivistic psychological theories, the term "behavior" is restricted to that aspect of a behavior that can be observed by others, i.e., the observable acts or concrete performance. As indicated above, problems with restricting the term "behavior" to this parameter

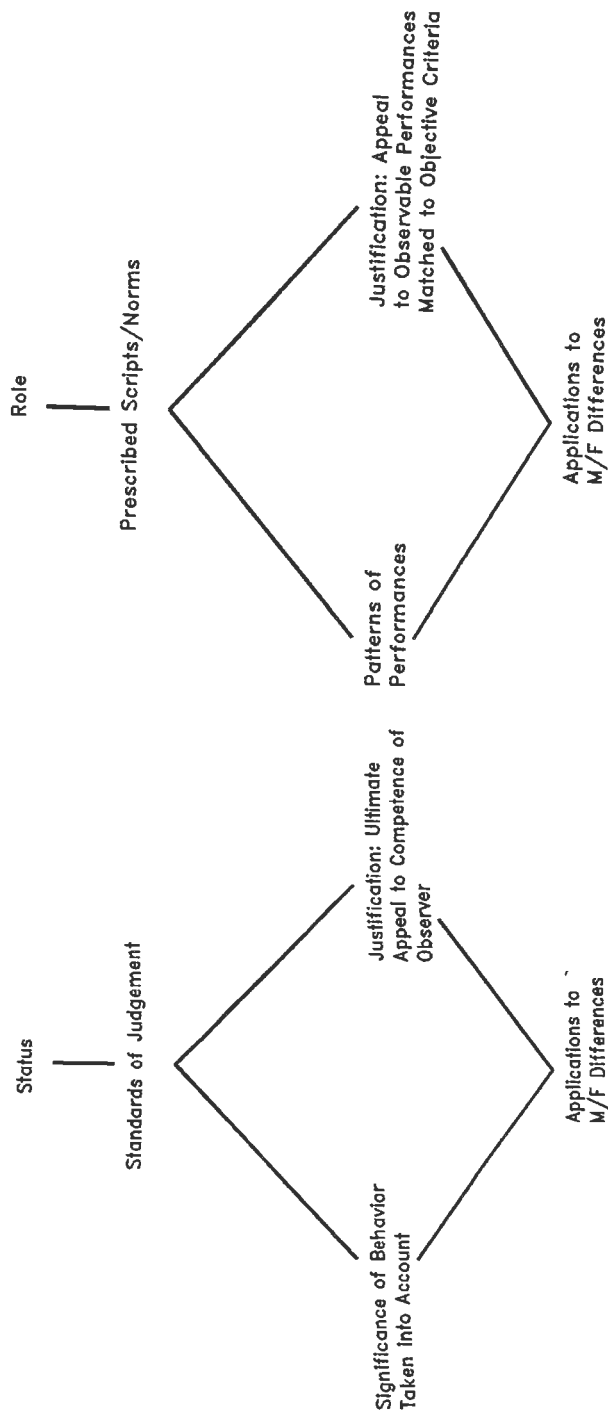
can be seen in the fact that the same observable performance can mean different things depending on the context, the motivations of the actor(s), and the perspective of the observer. The performance "he hit her on the arm" may indicate aggression, playfulness, recognition of irony, testing of reflexes, and accidental contact, etc., depending on the overall state of affairs.

In Descriptive Psychology, these differences in context and meaning can be accounted for by a more complete parametric analysis of behavior (c.f., Ossorio, 1981). In order to distinguish between arm-hitting as play or violence, one may need to assess the state of any or all of the following parameters: *Achievement (A)*, the product or consequence of the performance; *Knowledge (K)*, the knowledge state of the actor; *Know-How (KH)*, the skills of the actor; *Wants (W)*, the motivation of the actor. It may also be useful to know the *Identity (I)*, i.e., who the actor is, and some of the relevant *Personal Characteristics (PC's)* of the perpetrator. Most importantly, it is useful to know what is the *Significance (S)* of the arm-hitting performance, i.e., what is the larger behavior that the performance of arm-hitting represents. Or more pragmatically, what was he doing by doing that? Determining the significance of a particular performance most often leads to connecting the observable activity to specific intrinsic social practices which is a concept that will be suggested below as an alternative way of conceptualizing sets of roles.

In light of the Descriptive Psychology parametric formulation of the concept of behavior, the practice in role-theories of coordinating behavior to performance (P) descriptions only may be seen as a most limited form of behavior description and conceptualization. The same holds for people interacting with other people in real life. For a man to automatically assume that a woman crying represents a form of typical feminine weakness is a deficient form of behavior analysis. It may be the case that one significance of the woman's tears is angry frustration that the man cannot see it otherwise.

Competence at assessing the significance of particular behaviors, which connect to relevant standards of judgement being used in particular Social Practices, is an integral part of status assignment and negotiation. Role attribution as conventionally defined is a defective judgement process that simply connects performative aspects of behavior directly to stereotyped versions of social practices.

Figure 1. Comparisons of Status Dynamic and Role Formulations



1. Differences in masculine/feminine behavior lies in the significance of the behavior and related standards of judgement not in men and women doing different things.
  2. Change is brought about by increasing the competence of observers to judge appropriateness of given behaviors for men and women
1. Men and women do different things, have different behaviors according to performative criterion.
  2. Change is brought about by having men do more "feminine" things and women do more "masculine" things, i.e., combine traditional sex-roles into a new role; androgyny.



*Status dynamic accounts are justified by appeals to competence in appraisals whereas role theories are justified by appeals to principle and custom.* The major conceptual differences between status and role are summarized in Figure 1 together with the implications for understanding how conventional concepts of masculine and feminine may be changed. Differences in standards of judgement and concepts of behavior have been discussed above. In order to discuss justification and change issues, we need to elaborate on typical methodologies or epistemologies used in the application of Descriptive concepts such as status, standard of judgement, etc., and contrast them with typical justifications of sex role concepts in terms of theory, principle, and custom. The Descriptive framework for this task is the "ladder of appeals" (Ossorio, 1976).

The "ladder of appeals" was originally developed to account for how people may proceed in accounting for or justifying social change, and so it is especially appropriate for a discussion of sex differences. The ladder starts at the top with competence/standard/perspective, and then goes down to principle/theory/custom, and individual judgement, in that order. It justifies social change by pointing to the fact that in changed times, it takes new customs to implement the same principles or the same theory (e.g., the new custom of androgyny). Change is justified by appealing upwards, the lower limit being individual judgement and the upper limit competence, standard, or perspective. We do not have to appeal to each step of the ladder but can in fact skip to higher levels to justify change. In the final analysis, we are stuck, not at theory or principle, but at the level of our own perspective and competence in mastering the use of the concepts in question.

For example, in justifying doing something as an expression of being a mother, a woman is in the most fundamental respect only limited by her own mastery (her competence) in using the status concept of mother. She is also, of course, limited by opportunities, by conflicting demands, etc. Even if acting on this concept violated the prevailing customs, a woman could justify her behavior by appealing to our competence as observers, saying; "Can't you see that this is what a mother would do?"

Normatively, it is from perspective and competence in the relevant domain that we make judgements in that domain. That is, a change in perspective will change our discriminations and therefore our judgement. For example, if we change our standards for friendship, we will judge behavioral performance and customs differently as expressions of friendship. On the other hand, a change in custom, behavioral theory, or principle may change our performances but will not necessarily change perspective, standards, or competence. For example, a person could

change from a principle of "always be the first to say hello" to "speak only when spoken to" without changing standards for what counts as friendship or his/her competence to act friendly or appraise acts of friendship. Thus, change in the lower levels will not necessarily result in change in the upper levels.

One of the background sources of difficulty in implementing a competence approach may be that people are *not* usually taught to make judgements in accordance with a perspective which takes explicit account of the significance of behaviors, but rather are given, and look for, procedural prescriptions (e.g., customs, theories) for how to go about deciding matters. The competence approach is more difficult to characterize and learn than the performative/procedural approach since there are no prescribed procedural or performative ways to proceed! But the capacity to recognize perspectives and standards different from one's own, and the ability to discriminate different instances of the same standard or how the same performance can represent different standards, is what is involved here. This ability to apply knowledge can be called "mastery of concepts" and should be distinguished from the knowledge per se of the concepts, e.g., prescriptions and prohibitions. In sum, the difference between the procedure-oriented (theories, principles, customs) and significance oriented view of behavior corresponds to the difference between knowledge as information processing and as mastery of the concepts, i.e., competence in appraisal.

The differences in the appraisal and justification of concepts discussed here is directly relevant to the distinction between status and sex role. As indicated on the right hand side of the diagrams in Figure 1, sex role formulations are typically justified in academic literature by appeals to customs (conventional performances) principles or behavioral theories (theories about performances). On the other hand, a status formulation of sex differences considers the standards of judgement and significances of the observable performances, and justifies the analysis by appealing to the competence of the observer to make these kind of appraisals.

Also in Figure 1, it is noted that, in a status formulation of sex differences, social change is brought about by increasing the competence of people to take into account significance and standards in judging what is appropriate behavior for men and women. This contrasts with the best attempt at social change made by androgyny theorists, which has been to encourage men to perform more "feminine" activities and for women to engage in more "masculine" performances. While this may replace traditional customs with a less restrictive principle or custom, it does not change the performative perspective or the competence of people in making judgements about the appropriateness of sex differences in behavior. Only a basic change in perspective and epistemology as

outlined here will lead to basic changes in social behavior as well as a more scientific study of sex differences.

## APPLICATIONS OF STATUS DYNAMIC FORMULATION TO CURRENT SEX ROLE RESEARCH

The major features of a status dynamic approach to sex differences have been outlined above and summarized in Figure 1. In this section, a critique of current sex role research based on the status reformulation is given and an attempt is made to provide a more useful conceptualization of the notion of role.

### Deficits In Sex Role Approaches to Sex Differences

The observable procedural view of behavior has prevailed in psychology and has encumbered our attempts at analyzing and negotiating sex difference issues. Role theories merely describe traditional customary procedures or appeal to the "objectivity" of principles reflected by their theories. For example, without an appeal accounting for differences in standards and perspectives, the justification for a set of customs, theories, or principles can seem arbitrary and confusing. Further, by emphasizing observable criteria rather than people's competence in judgement, role theory seems a dehumanizing and non-compelling account of people as persons.

Traditional role theorists don't consider that "the same" behavior might be assigned a masculine status in one context and a feminine status in another context. A man, for example, comforting another person may be seen as protective and masculine when the person is a child but may be seen as feminine and overprotective in the course of a bar fight. Similarly, the significance of nurturant acts may vary considerably across situations. Consider a pat on the back in the context of a student successfully completing a project, as a gentle warning to a troublesome child, or as reassurance in a scary situation. In traditional role theories, particular performances are assigned to *either* masculine or feminine roles (e.g., nurturant acts are feminine) and the above distinctions cannot be made. Furthermore, if people attempt to act on the basis of role conceptions, they are severely restricted in behavior potential. Thus, wanting to be masculine could prevent a man from engaging in behaviors labeled feminine, even when acting in that way is "called for" (i.e., appropriate), and a woman could have a similar approach to femininity.

Androgyny accounts, (Bem, 1974, 1977) which challenge the traditional accounts, unfortunately and inadvertently are caught in the conceptual

trap just described. The intention of androgyny theorists was to propose a way of expanding the options available to men and women and to justify non-sex-stereotypic behaviors as being more "healthy". As an alternative to talking in the manner of traditional sex roles, androgyny accounts attempted to (1) present a formulation addressing the limitation of assigning a particular sex to a particular role, (2) transcend role theories. For some reason, however, androgyny theorists kept the labels "masculine" and "feminine" for traditional roles and described androgyny in terms of a *mixture* of traditional roles to resolve the issue.

Although it is in many ways innovative in its conceptualization, androgyny theory simply goes along with the custom of talking about sex differences in terms of behavioral performances, though to be sure, it refers to a mixture of the traditional role behaviors. Thus, it does not address the issue of how people can make judgements about which behaviors are appropriate and what significance is exemplified in which situations by a given procedure. Instead, androgyny theory just states (prescribes?) that a "healthy" person should be able to perform these behaviors, e.g., acting assertively, when they are called for. The crucial issue of how a person could be expected to know when a given behavior was called for, i.e., competence in judgement, is not actually addressed.

Another unnecessary problem for androgyny accounts is their failure to distinguish between the performative, significance, and achievement aspects of behavior. Their claim that one ought to be able to do any of these things if one is called upon is valid only in achievement terms as a useful prescription. What is described as being assertive, for example, is an achievement by someone's standards. In talking about assertive *performances*, they fail to make the distinction that what is assertive depends on the context and significance of the act. Thus, a person could assert himself/herself without performing a conventional assertive action. It could be more indirect, more subtle.

Originally the significance of androgyny was generated by the judgement that the roles of men and women should be expanded to include some of the rights and duties of the other sex. Under a role formulation, behaviors are equated with conventional sex-typed significances. Thus, in accepting role theorists' assumptions, androgyny theorists could not present new formulations of "masculine" or "feminine" roles because they don't talk about significances or achievements of performative behaviors as making sense given a "masculine" or "feminine" perspective (e.g., complementarity, etc.). The logical conclusion they came to was that we should no longer talk about masculine or feminine when we characterize non-sex-stereotypic people or make cross-sex distinctions, but rather distinguish between androgynous vs. traditional masculine and feminine people.

Caught in the traditional conceptualization problems of role theory, the androgyny formulation could go wrong by potentially generating new androgynous customs and concrete details of a new mythology. In practice, the new androgynous customs could be exemplified by people who (a) merely act according to prescriptive procedures and don't really "see" the significance of the theory or principles. (b) assimilate the customs to extrinsic motivations such as dominance or power (e.g., superpersons), and (c) are not competent to make appropriate judgements about what would be non-conventional androgynous behaviors. That is, the emphasis on procedures and "objective" descriptions of significance, e.g., assertiveness = masculinity, etc. could result in people's acting in ways which would violate the original intention of androgyny to expand the range of behavioral options for people.

*The Status Approach.* As discussed in a previous section, what is considered appropriate is related to the status of a person. Thus, our standards are reflected by our status assignments. The appropriateness of a behavior, and even which behavior it is, are connected to the status of the actor. For example, arguing a point may be aggressive and inappropriate for a woman traditionally, but assertive and appropriate for a man. For that kind of traditional status assignment, feminists are judging the status of women as being too handicapping with respect to other statuses, e.g., eligibility to negotiate an issue.

This discussion proposes that in order to fulfill its intent of transcending traditional sex-typed roles and promoting greater behavior potential for both sexes (i.e., giving new perspectives on performative behaviors traditionally judged masculine or feminine), androgyny theory could be reformulated according to our status formulation. Under a status description, we can make the following recommendations to help resolve the issue of how people can act appropriately and expand their range of behavior potential. That is, people can be explicit about their judgements about which behaviors are appropriate for the status of man or woman and what they take to be the significances of appropriate behaviors. For justification of the appropriateness of the exemplifications, people can take into account differences in standards, perspectives, and competence in appealing to customs, theory, and/or principle.

Further, the status formulation can provide us with a way to legitimize the distinctions of masculine and feminine as applying to people behaving in certain ways and not to disembodied behaviors. Thus, we can describe a woman as both feminine and assertive or a man as masculine

and nurturant as an alternative to defining a person as feminine when he/she is nurturant or masculine when he/she is assertive.

### Relationship Between Status, Role, and Social Practices

The question now arises, "When is it necessary to talk about role?" In order to develop a more appropriate conceptual place for role it might be useful to relate it to the descriptive concept of *intrinsic social practice* (Ossorio, 1981; Putman, 1981). Conventional role theories characterize sex roles by lists of specific performances or sometimes personal characteristics. However, these leave the reader up in the air as to what behaviors the performances exemplify (recall the arm-hitting example). Linking smaller behaviors to more encompassing behaviors is achieved by determining the significance of each unit (e.g., "what is he doing by doing that?"). When there is no longer an instrumental answer to the question about significance, an intrinsic social practice has been identified (e.g., "he did that because that is the way he is, what he enjoys most, etc."). Intrinsic social practices are not explicable in terms of exemplifying larger practices or behaviors. They are engaged in for their own sake and are therefore important indicators of types of social behavior and community memberships.

Intrinsic social practices may themselves be parts of larger social practice networks, some of which may be labeled Institutional practices since they are organized around meeting basic needs in a society (e.g., social practices exemplifying the status of mother are part of the institutional practices of family life in a community or society). Even more comprehensive are Ways of Life which include the types of practices above, in addition to others, and which represent in their totality the way a person or community of persons puts the whole "game of life" together.

One way to replace specific references to a role with social practice language is to make the role an institution, e.g., motherhood or the presidency (the role of leader of the country). Another way would be to start with the status of a mother and give a package of behaviors that would be considered appropriate by customary standards for that status.

Generally, a role is a bigger package (a larger unit) than a social practice, i.e., it usually involves more than one social practice. In this way, it is similar to institutions and ways of life in the sense that role, like institutions and ways of life, implies some chronological organization to the practices. A role is a sequence of behaviors, each of which is chosen from a set, enacted over time. For example, one must first give birth or adopt children and then take care of them until they are adults in order to be enacting the role of a mother. One cannot first take care of children until they are grown and then adopt them to be

enacting the role of a mother as prescribed by convention. Thus, the concept of a role as a package of behaviors which are related in specific ways is a more comprehensive and generalized description than is the concept of social practice which describes a more basic and generally smaller range of facts. Sometimes it can be useful and less cumbersome to describe behavior at the level of role descriptions, as we can see when we try to describe the customary social practices of a mother.

A role description can also be given as a package of behaviors with which an individual can discharge his or her duties and uphold his or her rights. Because of this, role language could be useful in describing certain status assignments when those status assignments entail certain rights and duties which are contingent upon prevailing customs and which can be used as criteria to judge how well a person is expressing that status. We might then describe a status by saying, "You can uphold your rights and discharge your duties by enacting role Y." That is, sometimes, the role description could be the more efficient way of talking, although it would also be possible to give a description of the rights and duties which go along with a given status in terms of behaviors, i.e., social practices. In fact, sometimes it might be necessary to elaborate the social practices rather than evoke the role for reasons of clarifying a definition of a particular role.

As a package of behaviors, the role is connected to historical particulars and can be said to change with time. What is taken to be the conventional role of mother will vary among different relationships and groups. This contrasts to status, which can and usually does remain constant even though a role associated with it may change with time. As a package of behaviors, a role is defined for the character only after the performance of the behavior by the observer's perspective. On the other hand, the status assignment, not being merely a function of performative behaviors, isn't limited to being decided after the fact. It can be said, then, that the role prescribes certain social practices according to historical contingencies and is justified by some observer's description of performative behaviors. These historical behaviors constitute a package which can be described then by role language.

## PRELIMINARY RESEARCH

Sapin (1979) conducted a study to determine whether sex-stereotyping by observers was related to their tendency to categorize specific acts in terms of socially prescribed roles (the *Performative* orientation in observational judgement) or in terms of the larger context of the specific performance under consideration (the *Significance* orientation).

An example of an individual with a *Performative* orientation would be one who categorizes direct confrontation of a bothersome smoker as aggressive, but who does not recognize the possibility that confrontation could also be a nonaggressive move in negotiation, or who does not recognize the possibility that more subtle forms of expressing dissatisfaction (e.g., coughing loudly and glaring) could also be categorized as aggressive.

An example of an individual with a *Significance* orientation would be one whose categorization of behavior as aggressive would take into account the larger context. This kind of person would categorize direct confrontation as aggressive or not, for example, depending on the purpose and personal characteristics of the one doing the confronting.

In order to test the question of whether observers who differed in orientation (*Performance vs. Significance*) would differ in the degree of sex-role stereotyping they manifest, a two-stage experiment was conducted. First, potential observers were tested to determine their observational orientation; second groups of observers with each orientation were tested to determine the characteristic degree of sex-stereotyping engaged in by each orientation.

#### First Phase: Testing Observational Orientations

A set of eight interpersonal episodes was developed. Each episode was composed of (a) a scenario relating a problematic situation and (b) a list of ten behaviors which were the response options in the situation. The ten response options were divided as follows: two sex-typed masculine behaviors; two sex-typed feminine behaviors; four neutral behaviors (representing neutral adjectives from the Bem adjective list); and two filler responses.

Of each pair of sex-typed behaviors and each pair of neutral behaviors, one was a *Performative* option and one was a *Significance* option. The *Performative* option was a direct and obvious response to the situation; the *Significance* option was a behavior taking the context of the situation into account. For example, in an anger provoking situation, the *Performative* options were: for the stereotypically masculine, direct expression of anger; for the stereotypically feminine, passive-aggressive behavior. Subjects rated each option on a 10-point scale of how appropriate the response was, and then indicated which of the options they would choose in that situation.

Subjects were categorized as *Significance-oriented* if (a) their ratings of the two kinds of options were highly similar and (b) they chose a high percentage of *Significance* responses as the behaviors they would carry out in the situation. (See Sapin, 1979, for details concerning the exact



criteria used.) Of the 120 subjects who participated in phase one, ten met the criteria to be categorized as *Significance-oriented*.

### Second Phase: Testing Sex-Role Stereotyping

Six episodes were developed to test sex-role stereotyping. Each episode was composed of a brief description of a problematic situation, followed by a number of response options, two of which were "critical" options—one was *Performative* and the other was a *Significance* response. (See Table 1 for examples.)

Table 1  
Scenarios and Behavior Options\*  
(sample only)

- 
- |    |   |
|----|---|
| 1. | Mary (or Steve) are sitting in a restaurant with a date. They are bothered by cigarette smoke being blown in their direction from the next table: She (He) responds by: |
| a. | Asking the person to stop blowing smoke in their direction (PERFORMATIVE).  |
| b. | Coughs loud enough for the smoker to hear (SIGNIFICANCE).   |
| 2. | Kevin (or Julie) is presenting a paper to a class discussion group. Whenever someone asks a question or makes a comment he (she):                                       |
| a. | Cuts them off by telling them to stop interrupting (PERFORMATIVE).  |
| b. | Waits till they finish and continues the presentation (SIGNIFICANCE).   |
| 3. | Joan (or Paul) is visiting a friend in the hospital who is depressed following a serious accident. She (He) says:   |
| a. | Everyone is waiting for you to get out and we hope you'll feel better soon (PERFORMATIVE).  |
| b. | Talks about the good times they have had reminding the friend of the happy person they have usually been (SIGNIFICANCE).  |
- 

\*Abbreviated versions of 3 of the 6 scenarios (Sapin, 1979). Note that each scenario presented to subjects included only one character gender and one of the behavioral options. The scenario was then rated on the Bem Sex Role Adjectives. No subject received more than one version of the same scenario.

Twenty subjects were selected from the first phase for inclusion in the test of sex-role stereotyping vs. status assignment: the ten Significance-oriented subjects and ten others randomly chosen from among the Performative-oriented subjects. The subjects were presented with

Table 2  
Performance Subjects: Comparison of  
Adjective Ratings for Male and Female Characters\*

Behavioral Options	Adjective	Male Character		Female Character		P
		<u>X</u>	S	<u>X</u>	P	
<u>Performative</u>	Total Feminine <u>Adjectives</u>	<u>34.60</u>	3.08	<u>24.29</u>	3.33	<u>.031</u>
	Assertive	4.93	.80	6.93	.58	.053
	Soft-spoken	5.73	.70	3.86	.60	.053
	Warm	6.33	.75	4.00	.75	.036
	Gullible	3.73	.72	2.00	.41	.050
	Indirect	4.40	.65	2.29	.47	.015
<u>Significance</u>	Total Masculine <u>Adjectives</u>	<u>40.43</u>	3.08	<u>25.06</u>	3.26	<u>.010</u>
	Total Female <u>Adjectives</u>	<u>23.50</u>	2.88	<u>36.81</u>	2.50	<u>.002</u>
	Aggressive	6.71	.41	4.12	.58	.001
	Assertive	7.00	.60	4.56	.66	.012
	Competitive	6.64	.61	3.82	.62	.003
	Dominant	6.36	.67	3.94	.54	.008
	Forceful	6.71	.61	3.80	.59	.002
	Gentle	4.50	.60	6.69	.61	.016
	Understanding	4.43	.76	7.62	.50	.001

\*Total and individual adjective ratings are shown only for those that are statistically significant

different versions of the episodes, the genders of the characters in the scenarios being systematically varied. Then subjects were asked to rate all of the response options, including the critical options, relative to twenty adjectives taken from the Bem Sex Role Inventory (Bem, 1974). Approximately one third of the adjectives were "masculine", one third "feminine", and one third were neutral.

The findings are clear-cut. Performative observers sex-stereotyped the behavior of the characters in all scenarios, whereas Significance-oriented observers did not. They rated each situation in terms of the appropriateness of the behavior to the situation regardless of the gender of the characters in the scenarios. Table 2 gives the mean ratings of adjective descriptors for which the Performative observers rating differed statistically as a function of the gender of the character in the scenario. Data for the Significance-oriented subjects is not presented since there were no differences in their rating due to gender of the characters.

One additional interesting pattern was observed in the results. The Performative-oriented observers showed *counter*-stereotyping effects for the obviously Performative response options (cf. means for Total Feminine Adjectives when applied to male and to female characters). They showed a traditional stereotyping effect for the Significance response options.

## DISCUSSION

Sapin's research clearly demonstrates that sex role typing depends on a person's competence to make certain kinds of distinctions regarding behavior. People who are not able to see the potential significance of particular behaviors in terms of actual personal characteristics and situational opportunities tend to use "ready-made" performative ascriptions (based on cultural scripts). However, people who can distinguish between Performative and Significance aspects of behavior (part/whole relationships) do not need role prescriptions to dictate their status assignments in particular situations.

The research also shed light on the methodological problems facing current measures of androgyny. It was noted earlier that college students especially want to present themselves in conformity to the popular "egalitarian" norms or roles of personal relationships even though their actual behavior is typically based on traditional sex-stereotypes. Current face-valid measures of androgyny are susceptible to this kind of social desirability bias.

The results in Table 2 demonstrate this kind of problem dramatically. For the obvious "performative" behavioral options, performative subjects (the vast majority in the initial college subject pool) counter-

stereotyped, i.e., they were leaning over backwards to avoid presenting themselves as traditional sex role typers. However, with the more subtle (significance) behavioral options, performative subjects fell back on their typical sex-stereotyped judgements. So the current measurement method is able to address the problem of social desirability by presenting performative/stereotyping subjects with behavioral options within specified scenarios that these types of subjects are not able to deal with except in their typical performative manner.

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# A HIGH POWER-LOW POWER ACCOUNT OF GENDER DIFFERENCES IN SELF-CRITICISM

Catherine A. Latham

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## ABSTRACT

In this study, gender differences in self-criticism are investigated utilizing the concept of high power-low power from Descriptive Psychology. High power-low power refers to a particular type of complementary relationship. The high power position involves initiating and terminating projects and plans, setting standards and evaluating progress, making decisions and insisting on certain things. The low power position involves selectively encouraging, implementing, elaborating, and interpreting decisions. It was assumed that in mixed-sex relationships, males are typically in the high power position and females are in the low power position. Hypotheses included (1) that being in a low power position leads to more self-criticism in females than in males, (2) that males are more likely than females to reject the low power position,

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Each of the above hypotheses was partially supported by the results. No support was obtained for the additional hypotheses that females are more self-critical, and more criticized by others, when in a high power position. One hundred and twelve subjects completed a questionnaire that presented stories depicting a male and female in a high power-low power relationship completing tasks in the female domain and in the male domain. Subjects rated the likelihood of responses that both persons in the stories may have had. Measures of self-criticism and rejection of the power position were derived from the likelihood ratings. The situational context of the high power-low power relationship must be taken into account in understanding men's and women's tendencies toward self-criticism.

Psychologists, sociologists, anthropologists, philosophers, and other scholars have recently been struggling to find conceptual systems and theories that accurately describe and increase our understanding of women's as well as men's experience in the real world. Central to the feminist critique of the existing theories is the fact that they have been generated almost exclusively by males, and that these theories are based on a male perspective of the world, and thus, in many cases, are not an accurate reflection of the female experience (Kaplan & Sedney, 1980; Hyde & Rosenberg, 1980; Bernard, 1981; Spender, 1981; Gilligan, 1982).

The conceptual system on which this study is based is Descriptive Psychology, which is a "systematically related set of distinctions designed to provide formal access to all the facts and possible facts about persons and behaviors" (Ossorio, 1985). As a set of distinctions, Descriptive Psychology is free from the androcentric biases inherent in many of the existing psychological theories. This is not to claim that any work, including this study, based on Descriptive Psychology is free from bias. On the contrary, the perspective of the person applying the concepts has a great deal to do with the ways in which concepts are applied, and the specification of which phenomena are of interest. My own perspective is feminist; I am assuming that the "present subordinate status of women is not intrinsic to nature but is a product of culture, and is therefore, changeable" (Cox, 1981, p. 3).

The question to be addressed by the study is, "Is the phenomenon of self-criticism different for women and men?" This question has not been asked, let alone answered, in any of the empirical psychological literature, although it is a question that could well be answered by empirical research. The present study is a beginning effort to explore the phenomenon of self-criticism in a formalized empirical fashion.

In the conceptualization section, the phenomenon of self-criticism is analyzed using the concept of high power-low power from Descriptive Psychology. High power-low power is a concept that describes particular kinds of relationships that have two complementary places or positions,

namely high power and low power. The high power position involves initiating and terminating projects and plans, setting standards and evaluating how things are going in terms of those standards, making decisions, and insisting on certain things. The low power position involves selectively encouraging, implementing, elaborating, and interpreting decisions, and following the standards set by the person in the high power position. Parent-child, teacher-student, supervisor-supervisee are all examples of relationships that can accurately be described as high power-low power relationships. Other relationships that are not as obvious can also be examined to see if this concept is useful in understanding a particular relationship. The high power-low power description might also be useful in understanding the relationship between two different groups of individuals. The groups that are of interest to the present author are women and men.

There is good reason to assume that generally speaking, in our culture, males are often in the high power position and females are in the low power position in their relationships with one another. This is not the same as saying that men have more power than women do in their relationships, because the high power-low power concept does not imply anything about *amounts* of power. Rather, it refers to the notion that the ways in which one is able to influence the relationship or exert power depends upon the power position one is in.

In a study of sex differences in the experiences and expressions of jealousy, Johnston (1982) found that many of the observed male-female differences could be understood as high power-low power differences. The purpose of the present investigation is to determine if the concept of high power-low power is similarly useful in increasing our understanding of the phenomenon of self-criticism as experienced by both females and males.

Self-criticism is a phenomenon with which most people are familiar, yet interestingly enough, it is not listed in the *Thesaurus of Psychological Index Terms* (American Psychological Association, 1982). Self-esteem, self-actualization, and self-mutilation are all descriptors of research carried on in the discipline of psychology, but apparently, self-criticism *per se* is not utilized as a descriptor of the empirical research being done in psychology. A computer search of the PsychInfo data base for any abstract that used the words self-criticism or self-critical, and which also made any mention of sex differences, revealed a total of six articles which potentially address the question of, "Is the phenomenon of self-criticism different for women and men?"

Examination of the three articles written in English, and the translated abstracts of the remaining three articles, indicated that none of the articles addressed this question directly. Stoner and Kaiser (1978)

administered the Tennessee Self-Concept Scale to high school juniors and found that males scored higher than females on the self-criticism subscale. Steele (1978) found sex differences in depression, with females more depressed than males, but did not find sex differences on the self-criticism subscale of the depression inventory in an investigation of the relationship of race, sex, social class, and social mobility to depression in normal adults. Orlinsky and Howard (1976) investigated the effects of the therapist's gender on the experiences of female clients and found that female clients who had male therapists felt more self-critical than the clients with female therapists.

Although the psychological literature does not offer much information on sex differences in self-criticism *per se*, there is a great deal that is known about sex differences in related areas. Self-esteem, which refers to a person's overall evaluation of his or her general worth, is a global concept that has been measured by a variety of pencil and paper instruments. When people are asked to describe themselves on these inventories, no consistent sex differences emerge (Maccoby & Jacklin, 1974). More subtle measures of self-esteem such as expectations of success and failure, and the explanations people give for their success and failure, do show some interesting sex differences. Maccoby and Jacklin conclude, "Clearly, college men are more likely than college women to expect to do well, and to judge their own performance favorably once they have finished their work" (1974, p. 154).

A more comprehensive review of the literature on self-confidence (Lenny, 1977) supports Maccoby and Jacklin's conclusion that much of the evidence indicates that females have less self-confidence than males, but qualifies this conclusion by further examination of the few studies that do not show sex differences. Lenny concludes that female self-confidence is more dependent on situational variables than is male self-confidence. She suggests that in studies where subjects were given minimal or no feedback on their performance, females had lower expectancies for success than males, but when feedback was clear and unambiguous, the sex difference in self-confidence disappeared. This finding could be interpreted as supportive evidence for the assumption that females are often in low power positions. Being in a low power position involves having one's actions evaluated by the person in the high power position, and therefore it is to be expected that evaluative feedback would be more salient to one who is used to this low power position. Lenny believed that having that feedback is necessary for women to expect to succeed.

In addition to sex differences in self-evaluations, evaluations made by observers also tend to devalue women. In a study on competitive game situations, observers were found to give more credit to successful male



players than to successful female players (Stephan, Rosenfield, and Stephan, 1976). They also found that the sex of the opponent made a difference in how much credit and blame the female players gave themselves. When women competed against men, they gave the male opponents more credit for success and less blame for failure than they gave themselves. The opposite was true when women competed against women, and when men competed, regardless of sex of opponent. This study also demonstrates that observers are more likely to criticize women than men when they fail. Of particular interest is the finding that women criticize themselves more severely for their own failures when they are competing against men than when they are competing against women. This suggests that although the subjects were peers in the experiment, their relationship may have had high power-low power components which were not experienced in female-female pairings.

Further evidence of negative evaluation of women was provided by the classic Goldberg (1968) study. Female subjects were given articles that supposedly had been published in various sex-related fields. For half the subjects the author was presented as a male and for the other half the same article was attributed to a female author. Even in the fields considered to be female fields (e.g., nutrition and education) subjects judged the article more favorably when it was supposedly written by a male. A recent replication (Paludi and Bauer, 1983) of the study which included males as subjects found that both males and females rated identical articles in both traditionally male and female fields more highly when the author was believed to be male. Some things may have changed since 1968, but apparently the practice of devaluing work done by women continues, and is engaged in by both male and female critics.

Thus far, evidence has been presented that indicates that females are less self-confident than males, do not expect to be successful in achievement-related domains (unless they have clear feedback from an outside source to the contrary), and that their work is evaluated less positively than males' work. While being less positive does not necessarily mean being more critical, it would not be surprising if females are more self-critical, and are criticized more by others than males are. It is important to note that the above findings are based primarily on individual achievements, not on achievements in interpersonal relationships. The review will now focus on differences in the importance placed on interpersonal relationships by women and men.

Many authors have suggested that women derive much of their self-esteem from their interpersonal relationships, whereas men are more likely to derive their sense of self-esteem from their accomplishments. There is a large body of theoretical literature that suggests women and

men differ in the importance placed on affiliative relationships (Bakan, 1966; Bernard, 1981; Gilligan, 1982; Kaplan & Sedney, 1980; Miller, 1982; Stiver, 1983). When asked to describe themselves, women responded in terms of their relationship with other people (e.g., "wife", "mother"), while men rarely described themselves in the corresponding relational terms, and more frequently described themselves in terms of their professions (Rubin, 1979). Women have been said to have a relational sense of self (Gilligan, 1982; Miller, 1982; Stiver, 1983; Surrey, 1983). Whether this duality is expressed as agency-communion (Bakan, 1966), instrumental-expressive (Parsons & Bales, 1955), or an orientation toward justice and separation versus care and connection (Gilligan, 1982), there is widespread agreement that females are more concerned with affiliative relationships than are males.

In her discussion of the dimension of activity-passivity, Miller (1976) proposes that the reason why women have been seen as passive is that much of their activity has not been in open pursuit of their own goals and interests. She argues that taking care of others, listening and being receptive, are not instances of being passive, but that they are seen as "not doing anything" by a male-defined culture. She, as well as other writers, have suggested that women are much more likely than men to criticize themselves as selfish if they do begin to act on their own interests, rather than act in a way that can be defined as taking care of and giving to others.

Depression is another area which bears a relationship to the phenomenon of self-criticism. A negative view of the self is one of the components of the primary triad in depression, according to Beck (1967). There is a wide agreement that the incidence of depression is greater in women than in men (Radloff & Cox, 1981; Belle & Goldman, 1980; Brodsky & Hare-Mustin, 1980; Klerman & Weissman, 1980) and it may therefore follow that the incidence of self-criticism in non-depressed populations is higher for females than for males. However, the literature does not answer this question directly.

The one piece of work in the literature that attempts to offer a survey of the major issues, intentions, and reasons a person may have for engaging in self-criticism is Driscoll's (1981) analysis of the phenomenon of self-criticism, which is based on the principles of Descriptive Psychology.

A basic concept in Descriptive Psychology is the concept of Intentional Action. An intentional act is one which is done for some reason, not by accident or mistake. This does not imply that a person is necessarily aware of his or her intentions or reasons (Ossorio, 1973). People often act without being aware of what it is they are doing or trying to do, and it is not necessary to be aware of one's reasons in order to act on them.

In fact, helping a client to see and understand what it is he or she is doing or trying to do is often a major part of a therapist's task.

Driscoll identifies 12 common reasons a person may have for engaging in self-criticism. He makes no claim that this is an exhaustive list of all possible reasons for self-criticism, nor does he imply that a person is acting on only one reason in a given instance of self-criticism. In fact, a maxim from Descriptive Psychology states: "If a person has two reasons for doing X, he has a stronger reason for doing X than if he has only one of those reasons" (Ossorio, 1982). So it is with self-criticism.

The following discussion will be limited to an analysis of the reasons and intentions which might have differential applicability for women and men. One reason Driscoll identifies is that self-criticism may be used as penance to absolve oneself of wrongdoing. Saying "I was being selfish" is a way of showing good faith by indicating that the standard of not being selfish really does count, despite having just violated it. By confessing, one can also hope to ward off accusations from others, and regain moral standing. The suggestion that women may be more influenced by outside standards, which was previously discussed, could lead one to expect that women may be more likely than men to have this reason for engaging in self-criticism.

Women may also have more reason than men to use self-criticism as a way to reduce potential disappointment. The research indicating that women have lower expectations for success (Lenny, 1977; Maccoby & Jacklin, 1974) can be interpreted as serving this protective function.

Self-criticism is a way to make a safe self-presentation. A self-presentation is a claim to a particular status. Self-statements are ways of saying, "This is who I am, so treat me accordingly." Self-criticism is putting oneself down, and therefore a claim to a lower status. The safety aspect of it is that if one makes a low status claim, it is unlikely the claim will be undermined. A high status claim on the other hand, makes one vulnerable to being "put in one's place". Many authors have stated that women are accorded lower status than men (Frieze, Parsons, Johnson, Ruble & Zellman, 1978; Kaplan & Sedney, 1980; Lott, 1981), so it may be particularly dangerous for women to make high status claims.

Self-criticism may also be used to evoke sympathetic involvement from others. Making a self-presentation invites others to try to reassure and support the person who is being self-critical. If it is the case that women are more oriented toward people, it is possible that they would be more likely to have this reason for engaging in self-criticism. One could also speculate that women would meet with more success using this strategy than would men.

Criticizing oneself might also be done to give an appearance of being incapable, to avoid responsibility. One could argue that a woman's self-presentation as being incapable is more likely to be accepted than a man's would be (at least in non-domestic domains), based on the previously discussed research that indicated women's work is judged by others less favorably than is men's work (Goldberg, 1968; Paludi & Bauer, 1983). Bem's (1974) investigation of sex role stereotypes also lends support to this argument. She found that characteristics describing competency were considered to be more socially desirable for males than for females. Therefore, it is likely that people would be more ready to see a female as incapable and treat her accordingly. It can also be argued that women feel less capable than men do (Maccoby & Jacklin, 1974), and therefore women may present themselves as less capable than men.

Another reason for self-criticism is that it may be a non-obvious means of expressing hostility. Driscoll discusses this type of self-criticism as a channelling of anger into self-derogatory rather than self-affirming actions. He states that clients who engage in this type of self-criticism "feel it is selfish and wrong to look out for themselves, to put their own interests ahead of others" (Driscoll, 1981, p. 344). These words echo Miller's (1976, 1982) description of women, and it would not be at all surprising if women were more likely than men to have this type of reason for engaging in self-criticism. Many other authors have also discussed the difficulty that women have with expressing anger directly, and many therapists suggest that anger is a central issue in therapy with women (Gilbert, 1980; Kaschak, 1981). Social prohibitions against men's expressing anger do not appear as strong; therefore, it would be quite likely that women would be more likely to have this reason for engaging in self-criticism.

For six of the twelve reasons Driscoll offers, a case has been made as to why it may be more likely that women would have those reasons for engaging in self-criticism. Driscoll's work did not address the issue of sex differences nor did it incorporate the concept of high power-low power. The present investigation is an attempt to analyze the phenomenon of self-criticism from a high power-low power perspective and to test empirically the predictions concerning sex differences that are derived from such a conceptualization.

## CONCEPTUALIZATION

High power-low power, as described by Ossorio (1976), is a type of complementary relationship. As noted previously, it does not refer to amounts of power, nor does it imply differences in ability to influence the relationship. Rather, it has to do with the ways in which a person is

able to influence how things go in a relationship, depending on the power position one is in. At first glance, it may appear that the high power position implies more control, but this is not the case. The person in the low power position can thwart any decision made by the high power person by passive resistance, by implementing the letter rather than the spirit of the decisions, and by selectively elaborating and interpreting the decisions made.

In our culture, it seems as if the qualities associated with the high power position are valued more than those associated with the low power position, and therefore more status goes with the high power position than with the low power position.

I am assuming that males tend to be in the high power position and females tend to be in the low power position in their relationships with one another in our culture. Support for this assumption is found in the research on sex-role stereotypes indicating that males are seen as being able to make decisions easily, to act as leaders, to be direct, and to be independent (Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970). Evidence suggesting that women are more likely to use indirect forms of power (Johnson, 1976) also supports this assumption.

Because being in a low power position involves implementing a plan initiated by another, following guidelines set by another, and having one's actions evaluated by another, there may be more of a need for self-criticism associated with being in a low power position. The reason one would need to be more self-critical in a low power position is that the course of action initiated is not (at least initially) one's own, so what one is doing is not, in general, what comes naturally. Thus, a self-critical stance may well help ensure that one is correctly following the appointed course of action. It is to be expected, therefore, that a person in a low power position will engage in more self-criticism than would a person in a high power position.

Self-criticism of a certain sort would not be called for if the person does not accept the low power position. If one does not accept the standards set by another, one would not have reason to use those standards to judge one's actions. If a person is doing what he or she has initiated, there would generally be less of a need to keep oneself in line. If it is the case that males are typically in the high power position in their relationships with women, and the high power position is more valued in this society, one could expect that there would be an unwillingness on the part of males to accept a low power position, and other things being equal, one would expect males to exhibit a corresponding lack of self-criticism.

Assuming that on the whole, males are in high power positions and females in low power positions in their relations with each other, we can

expect that a female who is in a high power position would be evaluated more negatively by observers (and perhaps by herself) than would a male in a high power position. The negative evaluation can be derived from either or both of two sources. The first is that for the female to be in a high power position is generally a violation of social norms, and so she would be evaluated negatively on this account. The content of this type of criticism is likely to be along the lines of her not knowing her place or being "uppity." The second is that the female will be evaluated by the standards appropriate to the normative female position, i.e., the standards corresponding to low power. Since the low power standard is inappropriate for someone in a high power position, if she does well with the high power position, she will, by that standard, be more or less of a failure. A female would therefore have grounds for rejecting a high power position, whereas males would have grounds for rejecting a low power position.

### Hypotheses

Based on the literature reviewed and the above conceptualization, the following hypotheses are offered:

- H1: Females in a low power position will be more self-critical than males will be in a low power position.
- H2: Males will be more likely than females will be to reject a low power position.
- H3: Females in a high power position will be more likely to reject the high power position than will males.
- H4: Females in a high power position will be more self-critical than males will be in a high power position.
- H5: People will be more critical of females in a high power position than they will be of males in a high power position.

## Method

### Participants

The participants in this study included 107 undergraduates enrolled at the University of Colorado during the spring and summer semesters of 1983, and 5 volunteers from the community. Eighty students participated in the study in order to fulfill a departmental research requirement, 19 students voluntarily participated during class time, and the remaining 8 students and 5 volunteers were solicited by word of mouth. Of the total 112 participants, 56 were male and 56 were female. Participants ages

ranged from 18 to 42 years old, with the mean age being 20.5. Of the subjects 88.4% were single, 2.7% were married, 6.3% were living with a partner, and 2.7% had previously been married.

### Instrument

In order to test the above hypotheses, two stories depicting examples of high power-low power relationships were developed. In both the stories, the high power character is described as initiating a project, directing the other character to implement the plan, and then critically evaluating the other character's performance. The story specifies that the low power person does not have much experience with the task but has agreed to help. One of the stories concerns a couple, Joan and Bill, who are building a bookcase together. The second story concerns another couple, Barbara and Craig, who are cooking a meal together for a dinner party. This choice of tasks was made because cooking is traditionally considered to be an activity in the female domain and carpentry is traditionally considered to be an activity in the male domain. The traditional sex role versions of the two stories are presented below. The characters were switched with the female in the high power position in the carpentry story and the male in the high power position in the cooking story for half of the subjects.

*Story 1:* Bill and Joan are building a bookcase together for their new apartment. Bill really enjoys carpentry and has made several other pieces of furniture. Joan has had a woodworking class in high school but does not have very much experience in this area. She has agreed to help Bill with this project. Bill tells Joan to get the screws and mark the centers for the screws for the shelves. When Bill sees what Joan has done he says, "Those are the wrong size screws and these two marks look like they are out of line."

*Story 2:* Barbara and Craig are having a dinner party at their home. Barbara is a gourmet cook and has planned an elaborate menu. Craig has agreed to help prepare the food although he does not have much experience in the kitchen. An hour before the guests are to arrive, Barbara tells Craig to cut the onions and carrots. As Craig is cutting the second onion, Barbara looks over his shoulder and says, "The onions have to be smaller than that and all the carrots have to be the same size."

Possible reactions that each of the characters might have had are listed following each story. Some of these reactions were examples of self-criticism, some reactions were examples of rejecting the high power-low power relationship, and some were criticisms of the other person. Participants were asked to rate how likely they thought each of the listed reactions would be on a seven-point Likert scale. All subjects rated both characters in both stories. Following the rating of the likelihood of the low power person's possible reactions, participants were asked to

indicate which of the listed reactions would be most characteristics of themselves if they were in the low power person's position.

Table 1  
Self-Criticism Indices

Low Power Position (LO-SC)	High Power Position (HI-SC)
1. Think to her(him)self, "I really am stupid when it comes to carpentry (cooking)."	1. I should have told her(him) exactly what I wanted her(him) to do.
2. Say, "I should have been more careful."	2. I should have watched what she(he) was doing more carefully.
3. Say, "I should have asked how you wanted it done."	

The indices of self-criticism for the persons in high power and low power positions, hereafter referred to as HI-SC and LO-SC, respectively consist of the mean of the ratings on the items found in Table 1. The indices of rejection of the high power position (REJECT-HI) and rejection of the low power position (REJECT-LO) are the mean of the ratings of the items found in Table 2. Criticisms of the other person were assessed by subjects rating both the high power and low power person on the dimensions of "likeable", "easy to push around", and "self-critical".

## RESULTS

*Hypothesis 1:* Females in a low power position will be more self-critical than males in a low power position.

P1 .1: Scores on LO-SC will be higher for female characters than for the male characters.

P1 .2: Female subjects will select a statement from LO-SC as their own response more often than male subjects.

P1.1 was confirmed for the cooking story, but not for the carpentry story. The means for Barbara and Craig in the cooking story were 3.34 and 2.97 respectively,  $t(110) = 2.00$ ,  $p = .05$ . For Joan and Bill the means were 3.70 and 3.55 which are in the predicted direction, but fail to approach significance,  $t(109) = .84$ ,  $p = .40$ .



Table 2  
Rejection of Position Indices

Low Power Position (REJECT-LO)	High Power Position (REJECT-HI)
1. Think to (him)herself, "If he(she) doesn't like the way I did it, she(he) can do it her(him)self."	1. This business of running a project is for the birds.
2. Say, "if you don't like the way I did it, you can do it yourself."	2. I should have done it myself.
3. Think to (him)herself, "I should never have agreed to help build this bookcase (make dinner)."	3. It's not like me to be telling someone what to do.
4. Say, "I never should have agreed to help build this bookcase (make dinner)."	
5. Say, "I bet this size screw would work just as well (the onions are fine the way they are)."	

P1.2 was not confirmed for either story. In both the cooking and the carpentry story, more females than males chose an item from the LO-SC index as their own response, however, the Chi Square test did not approach significance.

Responses to each item in LO-SC were analyzed separately using a 2 x 2 ANOVA. Results of analysis of the first two items for the carpentry story failed to reveal any main or interaction effects that were significant at the .05 level. Analysis of the third item, "I should have asked how you wanted it done", revealed a weak interaction  $F(1,110) = 3.31, p = .07$ . Inspection of the means indicates that male subjects tended to expect Bill to have this reaction and female subjects tended to expect Joan to have this reaction; however, the differences between the four means are not significantly different at the .05 level.

Analysis of the three items on the LO-SC index for the cooking story revealed a different pattern of effects. Analysis of the first item, "I really am stupid when it comes to cooking", revealed a significant main effect for sex in that female subjects were more likely than male subjects to endorse this item  $F(1,108) = 5.76, p = .02$ . There was a significant sex of low power character effect for the third item, "I should have asked how you wanted it done",  $F(1,107) = 4.93 = .03$ , with all subjects finding it more likely that Barbara rather than Craig would have this reaction.

Thus, the first hypothesis received partial support for the female domain of cooking, but not for the male domain of carpentry.

*Hypothesis 2:* Males will be more likely than females will be to reject a low power position.

P2.1: Scores on REJECT-LO will be higher for male characters than for female characters.

P2.2: Male subjects will be more likely than female subjects to select a statement from REJECT-LO index as their own reaction.

P2.1 was confirmed for the cooking story, but not for the carpentry story. In the cooking story, the mean score for Craig in the low power position was 3.61, the mean for Barbara was 3.12. The difference between the means is statistically significant,  $t(110) = 2.02, p = .05$ . While the means for Bill and Joan, 3.71 and 3.36 respectively, are in the predicted direction, they fail to reach significance,  $t(109) = 1.43, p = .16$ . Thus, Hypothesis 2 was partially supported.

A two-way ANOVA, with sex of subject and sex of low power character as the independent variables, and REJECT-LO as the dependent variable, revealed a significant interaction for the carpentry story,  $F(1,1) = 4.06, p = .05$ . Female subjects rate Bill as being much more likely than Joan to reject the low power position. The least significant differences test revealed that the mean for female subjects rating Bill is significantly different ( $p = .05$ ) from the means in the three other conditions. A two-way ANOVA with sex of subject and sex of low power character as the independent variables and REJECT-LO score as the dependent variable was performed for the responses to the cooking story. As expected from the results of the  $t$ -test, there was a significant main effect for sex of low power character,  $F(1,108) = 4.03, p = .05$ . No significant main effect for sex of subject or interaction effect was found.

For each story, each of the items on REJECT-LO were analyzed using a two-way ANOVA with sex of subject and sex of low power character as the independent variables. For the carpentry story, significant interactions were found for items #1 ( $p = .03$ ), #3 ( $p = .04$ ), and #5 ( $p = .02$ ) (See Table 2). On these three items, female subjects expected male characters to reject the low power position, and male subjects expected the female characters to reject the low power position. A significant main effect for sex of subject ( $p = .005$ ) on item #2 was found. Female subjects expected the low power person to reject the low power position on this item. A main effect for sex of low power character was found for item #6 ( $p = .01$ ). Both male and female subjects found it more likely that Bill, rather than Joan, would think, "Who is she to tell me what to do?"

For the cooking story, two-way ANOVA's on each of the 6 items revealed significant main effects for sex of low power character on items #2 ( $p = .03$ ), #3 ( $p = .02$ ), and #5 ( $p = .02$ ). In all cases, the differences were in the predicted directions, that is, Craig was seen as more likely than Barbara to reject the low power position.

P2.2 stated that male subjects would be more likely than female subjects to select an item from the REJECT-LO index as their own response. Although the differences are in the predicted direction, neither chi square test approached significance, thus P2.2 was not confirmed.

Hypothesis 2 received partial support for the cooking story and mixed support for the carpentry story.

*Hypothesis 3:* Females in a high power position will be more likely to reject the high power position than will males.

P3: Scores on REJECT-HI will be higher for female characters than for male characters.

This hypothesis was not confirmed for the carpentry story,  $t(108) = .39$ ,  $p = .70$ , or the cooking story,  $t(110) = .81$ ,  $p = .42$ . A two-way ANOVA with sex of subject and sex of high power character as the independent variables was performed on each of the three items that made up the REJECT-HI index for each story. For the carpentry story, the analysis of the first item revealed a significant main effect for sex of subject,  $F(1,108) = 6.13$ ,  $p = .01$ . Female subjects found it significantly more likely that high power characters would think, "This business of running a project is for the birds," than male subjects did, regardless of the sex of the high power character.

Analysis of the responses to the second item for the carpentry story revealed an interaction effect that approached significance,  $F(1,105) = 3.08$ ,  $p = .08$ . Inspection of the means indicate that female subjects found it more likely that the female character, rather than the male character, would have the reaction "I should have done it myself." However, the least significant differences test failed to reach significance level of .05.

No main effects or interaction effects for the third item on the carpentry story reached or approached significance.

Analysis of the three items indicating a rejection of the high power position for the cooking story revealed a different pattern of results. There were no significant main effects or interactions for the first two REJECT-HI items. The two-way ANOVA on the third item revealed an interaction effect that approached significance,  $F(1,108) = 3.16$ ,  $p = .08$ . Male subjects found it more likely that the male character, rather than the female character would have the reaction that, "It's not like me to be telling someone what to do." The least significant difference test

revealed that the mean for males judging the male character was significantly different from the other three means.

The different pattern of results for the two stories tentatively suggests that females are likely to reject the high power position in the masculine domain of carpentry, and males are likely to reject the high power position in the female domain. These findings provide partial support for Hypothesis 3, but only for the male domain of carpentry.

*Hypothesis 4:* Females in a high power position will be more self-critical than males will be in a high power position.

P4: Scores on HI-SC will be higher for female than for male characters.

This prediction was not confirmed for either the comparison of ratings of Joan and Bill in the carpentry story,  $t(198) = .80$ ,  $p = .42$  or the comparison between Barbara and Craig in the cooking story  $t(110) = 38$ ,  $p = .71$ .

The HI-SC index was developed by averaging ratings on two items for each story. A two-way ANOVA with sex of subject and sex of high power character as the independent variables was performed on each of the two HI-SC items for each story. No significant main effects or interactions were found for the first item, "I should have told her(him) exactly what I wanted her(him) to do." A significant main effect for sex of subject was found for the second item, "I should have watched what (s)he was doing more carefully," for the carpentry story,  $F(1,108) = 4.18$ ,  $p = .04$ . Regardless of whether it was Joan or Bill in the high power position, male subjects rated this item significantly higher than female subjects. The main effect for sex of subject from the two-way ANOVA on this item for the cooking story did not reach significance,  $F(1,108) = 3.35$ ,  $p = .07$ ; however, the direction of the differences between the means was the same as for the carpentry story, with male subjects having higher scores on this item than female subjects. These findings are contrary to Hypothesis 4. Male subjects, rather than female subjects, were more likely to endorse one of the two high power self-critical items. Hypothesis 4 was not supported by this analysis.

*Hypothesis 5:* People will be more critical of females in a high power position than they will be of males in a high power position.

PS: Ratings on the dimension of "likeable" will be lower and ratings on "pushy" and "critical" from each story will be higher for the female high power characters than they will be for the male high power characters.

Responses to each of the stories were analyzed separately using two-tailed  $t$ -tests. None of the predictions for either of the stories were

supported by the data. No differences were significant at the .05 level, although three of the differences approached significance at  $p = .10$ , in the opposite direction from the predictions. In the carpentry story, Joan was seen as more likeable than Bill,  $t(106) = 1.70, p = .09$ , and Bill was seen as more critical than Joan,  $t(107) = 1.86, p = .07$ . In the cooking story, Craig was seen as more pushy than Barbara,  $t(109) = 1.90, p = .06$ .

Additional analyses were performed by using a two-way ANOVA on each of the above dependent variables, with sex of high power character and sex of subject as the independent variables. None of the main effects or interactions were significant at the .05 level. Hypothesis 5 was not supported by the data.

## DISCUSSION

The results of this study indicate that the phenomenon of self-criticism is different for females and males, and that these differences are very much dependent on the nature of the task at hand. The findings suggest that the context of the situation in large part determines both how self-critical a person is likely to be, as well as how willing a person is to be in one of the two positions in a high power-low power relationship.

The first hypothesis stated that females in a low power position will be more self-critical than males will be in a low power position. This hypothesis received support, but only for females in a female domain. It appears that when females are in a situation in which they are expected to have some expertise, yet are in a low power position, they are more likely than males to engage in self-criticism. The parallel situation, of males in a male domain but in a low power position does not lead males to being more self-critical than females. The finding that males are more likely than females to criticize themselves in a high power position in a male domain may shed some light on why males are not more self-critical than females when they are in a low power position.

One way of interpreting the results is by thinking in terms of place. Females who are in a female domain and in low power positions are *in place in two ways*, as are males who are in high power positions and in male domains. It appears that being in place in this sense leads to an increase in self-criticism. Being out of place in two ways leads to a rejection of the position one is in. Thus it appears that males identify with the high power positions and females identify with the low power positions, but that neither sex identifies with the opposite sex domain. In order to criticize oneself for failing to monitor another's actions, one would need to identify with the high power position, otherwise there would be no grounds for self-criticism. Similarly, in order to criticize

oneself for not properly implementing a task initiated by another, one would need to identify with the low power position. If a person did not identify with the position he or she was in, then it would be much more likely that he or she would reject that position rather than criticize oneself for failing to carry out the responsibilities associated with that position.

One of the most interesting findings in this study was the different pattern of results found between the story in the female domain and the story in the male domain. The second hypothesis stated that males will be more likely than females to reject a low power position. Support for this hypothesis was found only for males in a female domain. The third hypothesis stated that females will be more likely than males to reject the high power position. Support for this hypothesis was found only for the females in a male domain.

To return to the notion of place, if most people consider that the males' place in relationships with women is in the high power position, and they expect him to be in a male domain, and that a female's place in relationships with men is in a low power position, and they expect her to be in a female domain, then each of the above results concerns a person who is out of place in two ways. The female who rejects the high power position is out of place not only by being in the high power position but also by being in a male domain. The male who rejects the low power position, is out of place by being in the low power position and by being in the female domain. Rejection of a particular position, then, would seem to depend on not fitting in that position in more than one way.

The significant interaction effects that occurred in the carpentry story in connection with rejection of the low power position are quite interesting. Females expected the male character to reject the low power position, while males tended to expect females to reject the low power position. The finding that females expect the males to reject the low power position is not particularly surprising. Female experience in actually being in the high power position is most likely to occur in female domains. These data demonstrate that when females are in high power in a female domain, males *do* reject the low power position. Based on this experience, it would be reasonable for women to continue to expect men to reject the low power position even in a male domain. It could be argued that if women cannot expect men to accept a low power position in a female domain, it would be even more unlikely that men would accept a low power position in a male domain. Yet, the male subjects did not expect the male character to reject the low power position in a male domain, as much as female subjects did, and on some of the items, males expected the female character, more than the male

character, to reject the low power position. One conclusion that can be drawn from this finding is that people do not expect much cooperation from the opposite sex when involved in activities in the male domain, and that women ought not expect much cooperation from males when women are directing activities in a female domain.

The hypothesis that females in a high power position will be more self-critical than males in a high power position was not supported by the data. There was a significant difference on one of the items indicating that males were significantly more self-critical than females when they were in a high power position in the male domain of carpentry. The content of the item, "I should have watched what she was doing more carefully", implies an acceptance of the responsibility of evaluating and monitoring progress that goes along with the high power position. If the assumption that males are more often in a high power position and females in a low power position is correct, then it follows that males would be more likely to criticize themselves for failing to carry out high power functions.

The finding that females were more likely than males to reject the high power position also supports the assumptions that males are typically in a high power position and females in a low power position. If a person does not accept the status of belonging in a high power position, she or he is less likely to criticize themselves for failing to carry out the duties of that position. Rather it appears that such persons would merely reaffirm that they did not belong in that position to begin with.

No support was obtained for the hypothesis that people will be more critical of females in a high power position than they will be of males in a high power position. In fact, there was a trend in the opposite direction in that people perceived the female high power character in the carpentry story as being more likeable and the male in the high power position in the carpentry story as being more critical. People also tended to perceive the male high power character in the cooking story as being more pushy. However, none of these findings were significant at the .05 level, so interpretation must be done with caution.

A possible explanation for these results is that traditionally males have been the recognized experts in virtually all fields. The subjects may have regarded the male high power characters as possessing more authority than the female characters, and have reacted negatively to his use of authority. The subjects may not have regarded the female high power characters as experts; therefore, the female character's criticism of the male low power character might not have been perceived as carrying as much weight.

It is also possible that the choice of the obviously sex typed activities of cooking and carpentry may have been particularly problematic in terms of social desirability. It may be that participants were counter-stereotyping as Sapin (1979) found. Sapin also used University of Colorado undergraduates in her study and found that when sex role variables were obvious, subjects tended to counter-stereotype, yet when the sex role variables were not obvious, subjects stereotyped in the traditional manner. Her findings suggest that students do operate on the basis of traditional assumptions about male and female differences, yet bend over backwards to avoid appearing this way. The finding in the present study that the female high power carpenter was more likeable than the male high power carpenter could be interpreted as a similar attempt to appear liberal concerning sex roles. A third possibility is that there are no gender differences when people evaluate high power characters, at least not on the dimensions assessed in this study.

Future research which addresses the implications of these findings to the issue of women and work could prove to be quite illuminating. Much of the advice given to women on how to achieve, particularly in the business world, appears to be directed toward how to become more high power. If, however, the underlying issue is that women view the world of work as a male domain and therefore reject the high power position, addressing this issue directly would be more beneficial than merely exhorting women to adopt a high power style. Traditionally, the domain of work outside of the home has been a domain dominated by men. A great deal of the present discomfort that otherwise successful women feel (which accounts for the current popularity of workshops addressing "the imposter scenario" and "feeling like a fraud") could be understood as stemming from this historical context.

It may be useful for the reader to reflect for a moment on his or her own observations of males and females in the real world. Based on the author's observations, it appears that women are more self-critical than men. This is not to say that men do not criticize themselves at all; rather, it appears women do it more often. Thus, I believe the frequency of this phenomenon appears to be greater in females than in males. Undoubtedly, the content of the self-criticism is in some cases different for females and males. In our culture it is quite easy to think of a number of women who criticize themselves on the basis of physical appearance, including how they are dressed. This often gets described as vanity, and stereotypes, as well as psychological theories, suggest that women are more vain (or narcissistic) than men. Treating a woman who constantly criticizes how she looks as someone who is engaging in excessive self-criticism has very different implications for treatment than does labeling her as narcissistic.



Future research is also needed to address the issue of constructive versus destructive types of self-criticism. Constructive self-criticism would appear to consist of the following steps: Making a mistake, judging it to be a mistake, diagnosing the problem, and following through with a realistic prescription for correcting or improving the problem. A destructive kind of self-criticism would arise if the diagnosis made was one for which there was no realistic prescription. Diagnosing the problem as "I'm so stupid" does not carry with it any realistic prescription for change. The only prescription would be "I should be smart" and this amounts to saying, "I should be a different person." Criticizing oneself for not being the right kind of person would not lead to change and would be very likely to lead to low self-esteem. A person who is in a low power position and accepts that position would appear to be more likely to make this kind of error in diagnosing the problem, because the standards used are the high power person's standards.

The present study did not directly address the issue of sex differences in the destructive type of self-criticism, yet the above line of reasoning would suggest that females, by virtue of their identification with the low power position, would be more likely than males to engage in destructive self-criticism. The well documented finding that the incidence of depression is greater in women than in men also lends support to the notion that women may be more likely than men to engage in the destructive form of self-criticism. Further research is needed to empirically test this hypothesis.

In conclusion, the concept of high power-low power has proven to be useful in understanding some of the observed differences in male and female self-critical behavior. The study indicates the importance of taking into account the situational context in which behaviors occur. It is to be hoped that future research will utilize the concept of high power-low power to increase our understanding of the observed differences between females and males in other aspects of human behavior.

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# IMPULSIVE ACTION AND IMPULSIVE PERSONS: A DESCRIPTIVE AND PRAGMATIC FORMULATION

Raymond M. Bergner

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## ABSTRACT

In this report, an alternative account of impulsive actions and impulsive persons is presented. This account seems to me both to better fit many easily observable facts about such persons and acts, and to heuristically suggest more and better courses of psychotherapeutic action than do most of our prevailing views. The present account has as its core conception the simple notion that impulsive behavior is straightforwardly a special case of rational, intentional action which entails, like any other such action, an individual acting on that which he has stronger reason to act on. From this core notion, I proceed (a) to consider some of these stronger reasons to act, (b) to develop an extensive list of constraining reasons which impulsive individuals are often observed to lack, and (c) to develop an explanation of why impulsive persons act as they do in so precipitous a fashion.

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My purpose in this study is to present an alternative, Descriptive-Psychologically based account of impulsive behavior and persons. The aim here is to provide an account which, aside from meeting basic criteria such as intellectual rigor and empirical accuracy, helps the practicing clinician to better envision what can be done and what needs to be done for impulsive individuals.

*The Diversity of Impulsive Persons.* It is generally recognized (e.g., Shapiro, 1965; Wishnie, 1977) that impulsive individuals, to a far greater degree than, say, paranoid, obsessive, or hysterical individuals, show a wide variety of faces to the world, and are placed in all sorts of different locations on our nosological maps. Some exhibit a great deal of antisocial behavior, perhaps without obvious remorse, and are designated "sociopaths". Some abuse alcohol and other chemical substances, and are designated "alcoholics" and "addicts". Still others exhibit a recurrent and easy yielding to the desires of others, and are designated "dependent" or "passive" personalities. And more. This diversity is so broad that the topic of impulsive style or personality as such is rarely taken up (but, see Shapiro, 1965; Wishnie, 1977). Rather, the tendency has been to separate out the various clinical subtypes comprising the impulsive genus for individual consideration (e.g., Cleckley, 1982, and McCord and McCord, 1964, on the sociopath; Horney, 1945 and Millon, 1981, on the dependent personality; Ausubel, 1970 on alcoholic personalities, etc.).

For this reason, I shall not, as I have in previous studies, attempt to provide a paradigm case "portrait" of impulsive persons. I should have to do a gallery of portraits, not a single one. Rather, what I shall attempt is an explication of the central concept of an impulsive act. For it is an enduring proclivity to engage in this sort of act which constitutes the common thread running through the lives of these otherwise diverse individuals. Following this, I shall go on to articulate some of the most commonly encountered reasons why individuals of all these diverse sorts are prone to behave as they do.

*A Note on Charity.* A folk song from the 1960s, "Gunslinger", had it that "there's no such thing as a bad cowboy, only a sick one". The song lampooned the mental health establishment's historical attempts to evade the problem of evil by converting it into a value-free "illness" (see also Szasz, 1962). The upshot of this attempt, I believe, is that moral notions have crept back into our thinking, but in a disguised and thus more insidious form (cf. the "return of the repressed"). Thus it is that discussions of impulsive individuals (among others), despite an overt allegiance to the notion that these individuals are "ill", often convey a distinct aura of moral contempt and superiority. Allegations that these

persons manipulate, that they have no conscience, don't want to change, can't tolerate frustrations, and are invested only in their own satisfaction, are made, not with the dispassion of a physician discussing a case of tuberculosis, but with a thinly veiled moral contempt. And, since we treat people in keeping with how we appraise them, such contempt is a heuristic disaster for the psychotherapist working with impulsive individuals.

One of the things that is needed, then, in an account of impulsive persons, is charity. An account should, among other things, not hold the impulsive person in contempt; at the same time, of course, it should not condone or excuse away the actions of these persons (previous treatments by Fenichel in 1945 and Wishnie in 1977 have been most exemplary in this regard). An open acknowledgment that some of the things done by impulsive persons are morally wrong actions for which this person bears some responsibility seems, despite the apparent paradox, a good start in this direction.

## AN ALTERNATIVE VIEW OF IMPULSIVE ACTION

In this section, I shall say some things both about what impulsive behavior is, and what it is not. I shall try to show that impulsive behavior does not represent some unique, formally different type of behavior, and that its existence does not require the postulation of an executive apparatus or ego which has evolved in a form radically different from the norm. On a more positive note, I shall try to show that impulsive behavior is a special case of rational (i.e., engaged-in-for-reasons) behavior, which differs from other behavior primarily in its being criticizable on ethical and prudential grounds, and on grounds that it ought to have been given due consideration prior to action, but was not.

*Impulsive Behavior Not Formally Different.* I should like to start by noting that, contrary to some authors (e.g., Shapiro, 1965), most human behavior has the same formal characteristics as impulsive behavior. It is swift in execution, engaged in with scant deliberation, and involves the immediate translation of inclinations into action. We do not ordinarily deliberate about whether or not to go to work each day, whether or not to feed our children dinner, whether or not to keep an important appointment, or what to say next in conversation. In fact, where persons do seem prone to stop and think about every little decision, *this* would ordinarily be considered an aberration from the norm ("indecisiveness", "obsessionalism").

In the same vein, there are certain types of persons—e.g., persons we term "spontaneous", "decisive", or "men of action",—whose general behavioral proclivities with respect to very important decisions are formally identical to those of impulsive persons. These persons, to a greater degree than most, swiftly, efficiently, and with little deliberation, translate inclinations into actions. Stock traders, chief executive officers of companies, military field generals, and others seem reasonably often to be persons of this sort. The chief difference between them and persons who come to be labelled "impulsive" lies, *not* in the formal characteristics of their behavior, but in the *ethical and prudential criticizability* of this behavior.

The conclusion from both of these considerations would seem to be that, while impulsive behavior is criticizable behavior, it is not formally different from the majority of normal, non-problematic human behavior.

*Not a Radically Different Executive Apparatus.* It is an easily observable fact that persons we call impulsive do not behave impulsively all or even most of the time. For example, in his interesting account of his six months spent with a New York mugger named "Jones", Willwerth (1974) reports that this individual would impulsively and without compunction assault and rob numerous people in the streets and parks of New York. However, in his relationship with his mother, Jones exhibited a tremendous amount of loyalty, support, devotion, and planful attention to her needs and wants. Further, a former client of mine, whom I shall call "Amy", was highly impulsive in her behavior towards men, yet in most other spheres of her life (e.g., her college coursework) was organized, thorough, meticulous, and planful to a fault (so much so that I one day jokingly told her she was "obsessive-impulsive"). Finally, Cleckley (1959) relates that psychopathic individuals *characteristically* have lengthy periods of success in socially acceptable endeavors, following which they "go out of their way to do something self-destructive" (p. 571).

Such facts would not seem to accord with the claim by certain authors that, in the impulsive person, we are confronted with an individual whose ego has evolved in a form different from that of the normal person. For example, in Shapiro's ego psychoanalytic account, (1965) the ego of the impulsive person is said to have evolved in a defective manner such that this individual is literally incapable of planning or abstracting or exercising prudent or ethical judgement. If this were so, it is hard to see how most impulsive persons are able to exhibit non-impulsive behavior most of the time.



*Impulsive Behavior is Rational Behavior.* To say that it is rational is to say that impulsive action, like any other human action, is engaged in for reasons. Rather than requiring the postulation of an unobservable, biologically conceived, impulse which erupts and causes it to occur, it suffices to say that it occurs because the actor had reasons to behave as he or she behaved. Thus, a proper reconstruction of an impulsive act, like any other act, is formally this: "P did A because he had reasons  $r_1, r_2, \dots, r_n$  to do so, and his reasons  $r_1, r_2, \dots, r_n$  for not doing so carried insufficient weight with him to refrain from doing A". From this point of view, to allege that a given instance of impulsive behavior is irrational is reflective of an observer/describer's ignorance of the actor's reasons (cf. Bursten, 1972, p. 219); it is not a correct attribution of a quality (or lack thereof) to that behavior.

*Reasons Are Not Causes.* There is a considerable philosophical literature bearing on this point (e.g., Donellan, 1967; Hospers, 1967; Toulmin, 1971) and a more recent psychological literature (e.g., Buss, 1978; Kruglanski, 1979; Locke and Pennington, 1982; Ossorio, 1969/81). This is not the place to delve into this matter in any detail. Suffice it to say that in the giving of reason accounts of behavior (e.g., "He drank heavily that night in order to allay his anxiety."), there is ample reason to conclude that the latter terms in such explanations (here, "in order to allay his anxiety") do not ordinarily meet the assertability conditions for being regarded as causes in the strictest sense of that term. They designate either (a) the purposes of an individual's action, or (b) the perceptions or beliefs he was acting upon in behaving as he did. Ordinarily, there is not sufficient reason to regard the set of all of a person's reasons as a set of conditions, positive or negative, which, being realized, some consequence will invariably and inevitably follow; i.e., as causal in the usual scientific sense of that term. This constitutes a fundamental difference between the present account and accounts in which biologically based or otherwise-conceived impulses cause behavior to occur.

*What is Impulsive Behavior?* To say that a given behavior is impulsive, then, is not to say that it belongs to some unique species of action. *It is to render a criticism of the action.* This criticism is to the effect that the behavior in question (a) *is imprudent and/or immoral, and* (b) *that given the nature and/or consequences of the action, it should have been given due consideration, but wasn't given such consideration.*

When on an everyday basis, we render criticisms of the behavior of others—that these behaviors are frivolous, or clever, or immoral, or considerate—we recognize clearly that these are criticisms of what

remain ordinary intentional actions. We are saying, to put the matter very generally, that the behavior was good or bad in some respect, but our intelligence is not bewitched into taking it that we are talking about a new and different *species* of action. The same consideration applies to the appellation "impulsive". If I seem to be belaboring this point a bit, it is because I have so often observed clinicians—in case discussions, in therapy sessions, and in their written work—treating impulsive behavior otherwise and bringing about pragmatic impasses where helping these persons is concerned. In talking about impulsive action, we continue to talk about rational, purposive action, and we know a great, great deal about how to deal with *that*.

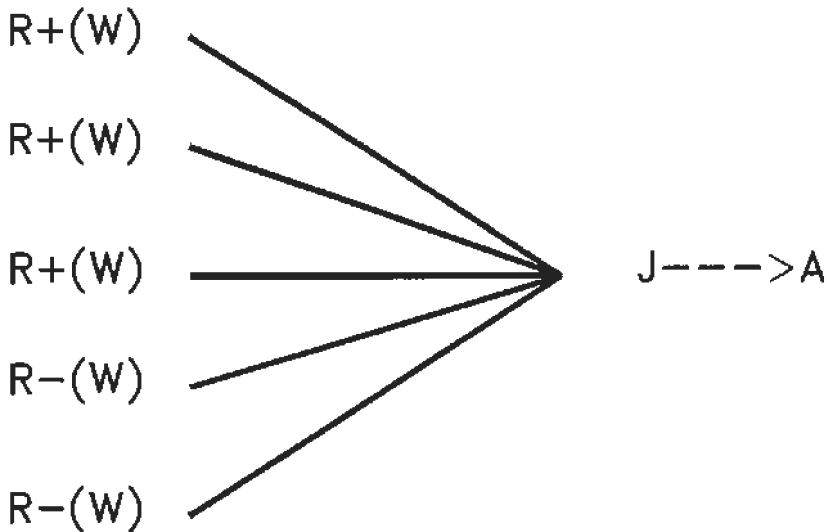
*What is an Impulsive Person?* If we simply apply the ordinary, conceptual requirements for the attribution of *traits* to persons (Ossorio, 1983), we generate the following definition: *An impulsive person is an individual who is prone on an enduring basis to engage in immoral and/or imprudent action of a consequential nature without giving such action the consideration due it; and this with a frequency in excess of that which is normally expectable within that individual's culture.*

*The "Calculus" of Intentional Action.* "If a person has a reason to do something, he will do it, unless he has at that time a stronger reason to do something else". This maxim was formulated by Ossorio (1967/81) as a pre-empirical requirement for any behavior description if that description is to qualify as a legitimate description of human action. A detailed discussion of this point may be found in the article cited, but is outside the scope and purposes of this study. Suffice it to say that, if an individual violates this requirement in giving an account of another person's actions, his account will be regarded as inadequate and defective by any competent listener. For example, should a prosecuting attorney say to a judge, "Your Honor, I submit, and I will demonstrate to the jury, that Mr. Jones killed his wife; I will also show that he did so despite the fact that he clearly took it that he had better reason not to kill her"; this lawyer would be counted by all competent parties present as having rendered a defective account (or else suspected of colluding with the defense to cop an insanity plea).

An adequate reconstruction or explanation of *any* human action, including an impulsive action, could be diagrammatically represented in the following manner:

"R+" here designates a reason for, and "R-" designates a reason against acting in some manner; "w" designates the weight or importance assigned to that reason by that person at that time. "J" designates a judgement or decision about what is to be done, and "A" the carrying

Figure 1. Judgement Diagram



out of that decision in action. This is simply a diagrammatic way of representing the proposition that: "Any action is reflective of a person's judgement that this is the thing to do; and this in turn is reflective of this individual taking it that he has reasons for acting this way, which reasons carry more weight for him than his reasons against acting in this manner."

In this common sensical and philosophically respectable (e.g., Peters, 1958) analysis of human action lies the answer to our key assessment question with respect to understanding impulsive action: *"Why did doing this action, which is to an observer so obviously problematic, count for so much to my client; and why did refraining from this action, which is to an observer so obviously advantageous, not count for enough?"* It is the ascertainment of the person's reasons for acting as he did, and of the weight or importance assigned to these reasons, as well as his lack of reasons for behaving otherwise, that reveal to us why he behaved as he did. These reasons pro and con, of course, will be reflective of his circumstances as he conceives them, and of his views of himself and his world. The latter in turn will reflect the conclusions that he has drawn on the basis of his personal history.

## SOME COMMON REASONS FOR IMPULSIVE ACTION

If my analysis is correct, the impulsive person is one who suffers more than anything else from a preponderance of abiding reasons *to* engage in imprudent and immoral actions, and a lack of abiding reasons to refrain, or even to give much consideration to refraining, from such action. With this analysis in mind, I shall divide this section into three parts, each designed to answer a pertinent question. (a) What are the impulsive person's positive reasons *for* behaving immorally, and/or imprudently? (b) How is it that some of the reasons not to behave thus, some of the drawbacks which seem so obvious to an observer, seem not to count for enough to deter the impulsive individual? (c) What are some of the reasons *why*, given these drawbacks, impulsive individuals tend to act so precipitously; why do they not even stop and think?

### Reasons for Immoral or Imprudent Action

The question here pertains to the individual's positive reasons for doing as he or she is doing. What were his or her *positive reasons* for going on the binge? shooting up? stealing the car? making the foolish administrative decision? reacting so violently to what seemed a minor insult? And so forth. We are speaking here about a virtual infinity of possible impulsive acts performed by a tremendous variety of different persons with a tremendous variety of different reasons and circumstances. How can we hope to achieve any uniformity or economy here?

The answer is that in good measure we can't achieve such economy here—that we *are* dealing with tremendous variety. However, what should be stressed here is that in each case it is up to the clinician to assess the key positive reasons why *this* impulsive client is doing as he or she is doing. What does this client want? What is this client trying to accomplish by doing that? In some quarters (I am thinking here especially of many, but not all, alcohol and drug programs), the impulsive behavior in question (e.g., the drinking or drug usage or antisocial act) is labeled "impulsive", "self-destructive", "psychopathic", "antisocial", etc. with scant attention paid to the fact that we are talking about a person with good reasons to do as he or she is doing. The behavior is categorized, not accounted for. And since, as clinicians, we would do well to assess and to appeal to what our clients want, to what matters to them in our therapeutic endeavors (Driscoll, 1984; Ossorio, 1976), we ignore the assessment of such positive reasons at enormous pragmatic cost.

For example, let us examine what some of the reasons behind an individual's drinking behavior might be. In the single act of drinking, an individual might simultaneously satisfy all of the following motivations, and more. (a) He might effectively anesthetize some personal pain he is experiencing (e.g., powerful anxiety or depression). (b) He might enter into a euphoric state in which, in contrast to his ordinary low opinion of himself, he experiences a sense of personal esteem (cf. an old drinking slogan that offers the following encouragement: "Let's get drunk and be somebody."). (c) He might, through drinking and a consequent lowering of inhibitions, become able to feel and to do things that he finds himself unable to do in a non-intoxicated state (e.g., to feel and to express love or anger). (d) He might, in the act of drinking, demonstrate to his spouse or his parents that they cannot control him, a demonstration of considerable personal importance to him. (e) He might by drinking achieve an otherwise rare state of solidarity and community with others—again, this may be something which he is substantially unable to do in a non-intoxicated state. And more. All of these, for a given individual, might constitute a set of powerful reasons that he can satisfy simultaneously by the single act of drinking. If, to anticipate a bit, there is on the other side of the ledger little perceived reason *not* to drink, the experience of this individual will be on balance one of powerful temptation to drink, and little resistance to that temptation.

This example illustrates another point, and this is the fact that with some frequency behavior which is deemed impulsive or otherwise psychopathological is engaged in for reasons which most observers can not only understand, but *affirm*. Reasons such as pain relief, esteem elevation, the experiencing and expression of love and anger, and needs for solidarity and community with others, are understandable and *affirmable* reasons. Indeed, one could and should build therapy around trying to help an individual to achieve these same purposes without the costs inherent in alcohol consumption (cf. Chafetz, Hertzman, & Berenson, 1974). People drink, as they do everything else, to expand their personal behavior potential, to expand the range of things they can feel and do. A therapy which acknowledges this and skillfully sets about to help people accomplish their purposes in non-problematic ways, will be a powerful therapy. This point, in my experience, is overlooked by alcohol programs and workers a great deal of the time.

Let me cite a second example, this one taken from the excellent work of Wishnie (1977). A young man named Elton committed what on the surface appeared to be a series of "stupid" illegal acts, and was apprehended and jailed. Wishnie (p. 35) relates that, for Elton, who was an ex-convict, it was a terrible struggle to survive outside of prison. For him, jail represented release from this painful struggle, food, shelter, a

job, structure, a focal point for his rage (the prison system), and confirmation of a (negative) identity all wrapped up in one neat package. He thus had powerful positive reasons to return to jail and, as it happened, little reason to remain outside of prison. And he acted accordingly.

I select this example to illustrate a common mistake to which we as mental health professionals are sometimes prone. This is the mistake of counting as reasons *against* factors which, for the impulsive person, are reasons *for* acting in some fashion (cf. Bursten, 1972, p. 219). In Elton's case, if we blithely assume that getting jailed is a "negative consequence which he doesn't stop and think about", it becomes easy to criticize his behavior as "stupid", "impulsive", "showing bad judgement and an inability to learn from experience", and so forth. When, however, we realize, as Wishnie does, that returning to jail is a highly prized goal for Elton and that he had abundant reasons to strive *for* this goal, we realize that his behavior very *skillfully* accomplished *his* objectives.

There is not always, as in the examples above, a confluence of multiple reasons upon which an individual acts impulsively. At times, there is a *single* inordinately powerful reason, a reason of such centrality to the individual that, for him, it overrides all other reasons to refrain from ill-considered actions. Such a single, superordinate reason is often the case in what are called "crimes of passion". The classical example of this is of course that of the man who, upon arriving home, finds his wife in bed with a lover and, in a fit of passionate rage, kills them both. In this scenario, the provocation inherent in such a basic violation of such a basic trust counts for more than anything else (e.g., his own future, the future of his young children, the possibility of future happiness with his wife, etc.), and he acts on this preeminent motive. A less classical and dramatic, but far more common case, is one in which one individual, often an individual with a very marginal esteem, is attacked and threatened with degradation by another in an area of enormous personal sensitivity (e.g., a man who is both very insecure and very sensitive about his masculinity is called a "fag" by another individual). In such situations, issues of face—of not accepting what for them is a devastating degradation—may be of such paramount importance that all other considerations (e.g., getting beaten up, going to jail, losing one's family life, etc.) are overridden, and the man physically assaults his abuser.

In closing this section, it should be kept in mind that, for a person to act impulsively, there need not be either single or multiple *powerful* reasons to act. In the relative absence of *sufficient reasons to refrain*, it need only be the case that the individual's reasons *for* acting in some fashion be sufficient to outweigh his reasons *against*; they need not be the very powerful and compelling sorts of reasons that I have been

describing in this section. This consideration leads us naturally to the next section of this paper.

### Why Doesn't the Impulsive Individual Refrain?

Impulsive persons suffer very importantly from *a lack of abiding reasons to refrain* from problematic action. This lack is a *perceived* lack, and it may accurately reflect reality, or it may not, in any given case. In either event, obviously, if a person *does not take it* that he has sufficient reason to refrain, he will not refrain.

Thus it is that an understanding of any given individual's lack of reasons to refrain will shed light on why he behaves as he does. It will also illuminate some of the matters which we as psychotherapists can address in order to help the impulsive individual to become better able to resist problematic temptations. With this in mind, let us take a look at some of the most common of these factors.

1. *The individual does not take it that he has a future.* An old saying has it that we should "eat, drink, and be merry, for tomorrow we die". The common sense encouragement here is to grab for all the here and now satisfactions that you can, because (a) you have no future in which all of the negative consequences attendant upon such behavior will be incurred, and (b) since you have no future, you may as well grab for those satisfactions left to you.

Restraint, quite simply, makes less sense if one takes it that one has no future, and it is a traditional observation that many persons prone to impulsive acts "lack a future perspective" (e.g., Cleckley, 1959, 1982; Wishnie, 1977). This has taken the extreme form for a few of my clients that somehow they will literally die. More commonly, their sense has been that there was no meaningful, rewarding future ahead of them, that their lives were on a downhill course such that what lay ahead was bleak, empty, meaningless, and painful (cf. Wishnie, 1977). The future rewards for which an ordinary person might resist a problematic temptation will seem to such a person like an idiot's fantasy, not a legitimate reason why he should resist a current real, tangible possibility for satisfaction.

Therapeutic question: If this be the case for my client, how might I introduce him into a world where he has a future, and that a future worth having?

2. *The individual takes it that the negative consequences attendant upon some act will not accrue to him.* An individual may have had a history in which he has repeatedly evaded negative consequences of his behavior, by whatever means. He may, for example, have had parents who for their own reasons could not bear to see him incur pain or frustration, and thus did not meaningfully punish or limit him (Maher, 1966, pp. 212-223). He may have been deferred to, treated as special and as "above the

law", and thus not subject to the rules or sanctions which apply to "ordinary people" (see, e.g., Raimy, 1975, on the developmental histories of "special persons"). Or he may have developed very extraordinary abilities to evade the consequences of his actions, to "beat the rap" (Cleckley, 1959, 1982). In any event, what an *observer* might count as "negative consequences", as "powerful reasons why he should refrain from acting", the impulsive *actor* will (understandably and perhaps correctly) count as "complications which either won't occur or which I can easily evade if they do occur".

Therapeutic question: If this be the case for my client, how can I wean him from this "fool's paradise" world, and introduce him into a world where he cannot possibly continue to evade powerful negative consequences of his behavior? (Impulsive persons who come to us for therapy have already as a rule encountered such consequences; however, this has not as yet caused them to change their minds about how the world is.)

3. *The individual takes it that he is not related to others in such a way that these relationships provide reason against acting problematically.* For most people, some of the most powerful sorts of reasons to refrain from problematic action have to do with their relationships to other people. To put the matter very generally, if these relationships are on balance reasonably meaningful and rewarding, they provide individuals with all sorts of reasons not to act in self-destructive or other-destructive ways. They have powerful reasons not to do anything which would jeopardize these relationships; not to hurt these individuals, not to bring shame on these individuals, not to reduce their own ability to maintain the relationships, and so forth. In contrast, where one has nothing to lose relationally speaking, or where one is involved in relationships which are of such a nature that one actually wishes to shame, injure, or lose the other, these constraints against destructive acts are missing.

Therapeutic question: If this be the case for my client, how can I help this individual to change his relationships to others in such fashion that they provide reasons to refrain from destructive action; or to help him to see that he already has relationships which provide reason against, but has not taken it that he has such relationships?

4. *The individual has no personal goals that a given impulsive act would jeopardize.* An obvious constraint on destructive actions for many persons is the fact that they have personal goals, the fulfillment of which would be jeopardized if they acted on a problematic temptation. Thus, for example, a woman with important career aspirations, if tempted to quit her job on a frustrating day or to lash out at her boss in an unrestrained way, would have powerful reasons not to act so rashly on these temptations.



Many impulsive persons have few or no such personal goals (Shapiro, 1965; Wishnie, 1977). In fact, as I have already noted, they may not even take it that they have a future, an obvious precondition if one is to formulate goals, which by definition have a future reference. Or, they may not take it that *they* are persons who could conceivably persist and succeed at any long-term personal endeavor. This, simply, is not and maybe never has been a part of their conception of themselves. For these or other reasons, then, these constraining factors (and positive sources of meaning and satisfaction) which are long-term goals are simply missing from their lives.

Therapeutic question: If this be the case for my client, why is it that he as an individual has no personal goals, and how then might I introduce him to a conception of self and world in which it makes sense to adopt such goals?

5. *For the individual, moral reasons do not constitute compelling reasons to refrain from problematic acts.* Yet another reason why people refrain from acting on certain temptations is simply that they take it that such actions would be morally wrong. Tempted to steal funds from their company, or to vandalize another's property, or to take a potentially harmful drug, they refrain (among other reasons) because they believe that to treat others or themselves in such fashion would be morally wrong.

When one examines them, moral codes (e.g., the ten commandments), moral principles (e.g., the golden rule, the categorical imperative), and moral concepts (e.g., justice) have to do primarily with how one ought to treat others and, to a lesser extent, oneself. They have to do with refraining from the doing of insufficiently justified or gratuitous harm to others or oneself. They have to do with how, in relation to others, it is permissible and impermissible to achieve one's personal ends (e.g., one may work, but not steal, to obtain money).

It makes sense that allegiance to moral precepts will ordinarily *make sense*, in the sense of constituting *compelling grounds for action*, only to a person who has certain relations to, and certain conceptions of, himself and others. Consider for a moment the hypothetical example of a young man whose primary experience with animals as he grows up is that they snarl at him, chase him, bite him, and generally terrorize his existence. At the same time, however, he repeatedly hears a moral precept from his parents: "Be kind to animals". The young man grows up able to verbally articulate and intellectually comprehend this principle, but *it makes no sense to him* as a way to treat *that* sort of creature. It does not constitute a compelling ground for personal action.

A young person might grow up in a world where he is repeatedly the object of capricious and abusive treatment: kindness is likely to make

little sense to him. A young person might grow up in a world where he is the object of what seem unjustified, gratuitous deprivation and neglect: altruism is likely to make little sense to him. A young person might grow up in a world presented to him as a "jungle" composed of only two types of people, "cons" and "suckers" (Wishnie, 1977): honesty is likely to make little sense to him. A young person might grow up in a world with very little expression of vulnerable emotion and very little intimate disclosure, a world in which others appear like cardboard cut-out stereotypes with no inner life: compassion and empathy are likely to make little sense to him (indeed, they will be relatively impossible). And more.

I have been speaking thus far about entire developmental histories inimical to the development of moral perspectives. To refine this picture, two further possibilities should be briefly noted. First, an individual might grow up in a world conducive to a moral sense, but later enter a new world which effectively annihilates for him this earlier experience. "Worlds" such as concentration camps, prisons, and war have historically proven very effective annihilators of earlier developmentally acquired senses. In such worlds, many persons become utterly disillusioned; they find out "what sort of world this really is", and the sort of world it really is, like the world of the young boy terrorized by dogs, is one which is inimical to morality.

Secondly, it is an observational commonplace that many individuals do not operate with a *blanket* moral sense. Rather, within their worlds, they have relations to, and conceptions of, certain persons such that they treat these persons by and large in an ethical manner. On the other hand, they have relations to and conceptions of other persons such that they treat these others in a thoroughly unethical manner. An example of this is the mugger, "Jones", mentioned previously, whose treatment of his mother was morally impeccable, while his treatment of most others was quite the opposite. It has been my experience in clinical conferences that we as clinicians are sometimes too quick to pass the indictment "no superego" on persons who, on closer inspection, clearly operate morally in some of their relations. Considerations of fairness to the client aside, it is far easier pragmatically to *extend* a moral sense to new domains than it is to create a moral sense anew. My own experience with impulsive individuals, and the very ample experience working in a prison setting of Wishnie (1977), suggest that there are very few *totally* conscienceless, remorseless "monsters" about. We are rarely in the position, like the God of creation, of having to make something out of nothing.

Therapeutic question: If this be the case for my client, how might I help him to alter his conception of others and self, and his relatedness

to same, in such fashion that it would make sense to him to restrain himself on moral grounds? (Note that the tactics suggested by this question would ordinarily not entail any explicit moral appeal. The direction is more: "Help him to live in a world where morality would make sense.")

6. *The individual takes it that he has no options, aside from destructive and costly ones, to deal with important life predicaments.* If, confronted with a temptation to solve a pressing life problem in a very costly manner, an individual perceives that he has a less costly but effective option, he has clear reason to refrain from the more costly solution. Lacking such alternative solutions, obviously, he has less reason to refrain.

Thus, if an individual's only perceived option for dealing with intolerable psychic pain is to drink, or to "shoot up", or to distract himself with dangerous excitements, this individual has less reason to refrain than does an individual with alternative solutions. If another individual's only perceived option for dealing with serious threats to face is to lash out violently, this individual too has less reason to refrain. Or, to pursue a final example, should an individual's only perceived option for dealing with loneliness and discreditation be to offer herself sexually to others, this individual also will have less reason to refrain than another who sees an alternative solution.

Therapeutic question: If this be the case for my client, precisely what problems is he trying to solve with his destructive actions, and how might I aid him in finding alternative solutions to these problems?

7. *The individual does not take it that many life pursuits require careful, painstaking, and perhaps longstanding effort in order to succeed.* If one has a soher realization that "real things take real time" (Ossorio, personal communication, 1981), that often there are no shortcuts if something is to be done well, that life endeavors of any meaningfulness often entail setbacks and frustrations, and other such "things-are-tough-all-over" realities (Ellis and Harper, 1961, pp. 144-153), then one may act in a fashion which accommodates these realities. For example, confronted with an exacting, painstaking task, one might act with the soher realization that "this is going to take time and care, and there's no way around it if I am to do a quality job."

If, however, one fails at such realization, the temptation in the face of pain, obstacles, and setbacks will be to abandon the attempt or to devise shortcuts which result in inferior outcomes and later problems. For example, an administrator of my acquaintance, in the face of management decisions requiring considerable thought, research, and examination of multiple factors, routinely failed to acknowledge this and rendered "shoot-from-the-hip" decisions which proved very ill-advised.

Ultimately, he was fired for one of these decisions. Another individual whom I saw reported that in his work as a carpenter, he many times could not face certain painstaking, slow tasks, and would resort to shortcuts. Frequently, these shortcuts would result in inferior products, having to do certain tasks over again, and considerable self-censure over his own sloppiness and lack of discipline.

It is widely alleged in the literature on impulsive individuals that they *lack the ability*, that they *cannot* "tolerate frustration", and it should be clear that I am here touching upon this ground. I think we would do well to recall Victor Frankl's (1963) notion that, if pain and frustration are to be endured, it is essential that an individual *see some point or purpose in it*. Lacking this, it is perfectly sensible to conclude: "Well, why should I put up with pain and frustration if there is no point or purpose in them? Certainly, they are not goals in themselves." Sometimes, it is not that the impulsive individual *can't* tolerate frustration, it is that he *can't see the point of tolerating it*.

Therapeutic question: If this be the case for my client, how may I (a) help him to realize and to come to terms with the reality that many life undertakings inevitably entail frustrations, painstaking effort, time, and painful setback; and (b) help him to realize that there is a point and a purpose to persevering in those endeavors which are personally meaningful to him?

8. *The individual takes it that he is a "victim of impulse"*. Many individuals, like many psychological theories, conceive of the relationship between impulse and action as a causal relationship. They take it that they are visited by impulses over which they have no control, and that these impulses *make* behavior occur. It makes little sense, if this is one's view, to try to restrain oneself. Such efforts would fall into the same category as trying to prevent a tide or a weather front from coming in—one is attempting to prevent what amount to natural inevitabilities. The only rational thing to do in this view is to "go with" the impulse, not fight it. The very best that one might hope for is that one might "rechannel" the impulse in some nonproblematic direction.

When one experiences a temptation in the absence of certain kinds of abiding relationships to the world—important, rewarding relationships to other persons; abiding personal goals, interests, and values; a sense that one has a meaningful and rewarding future before one, and so forth—in short, a whole set of relations which give a person reason at times to modulate or restrain himself, this person will be prone enduringly to "go on a whim". And his phenomenological sense will often be, not that he exercises deliberate planful choice, but that in him temptations are repeatedly, and without his having much say in the matter, translated into action. In sum, the sense will be created that he

is not an *agent*, not one who is capable to any really significant degree of exercising choice in the face of temptation; rather, he is a passive vessel in which behavior is *caused* to happen. (Shapiro, 1965, makes essentially this same point; however, he makes it in the context of a conception of persons and action in which there are in fact no agents, and choice is an illusion. The pragmatic upshot of his view is that, should a psychotherapist wish to help his clients to a sense of personal agency and choice, he would need to do so without personal conviction and with a sense that he was attempting to promote an *illusory* sense in his client.)

Therapeutic question: If this be the case for my client, how may I help him to reappraise himself as an agent; as one who chooses and decides and, in the face of temptation, has the power to exercise choice?

9. *The individual suddenly loses a status.* There are numerous statuses the preservation of which give individuals reason for personal restraint, and the loss of which may bring about the corresponding loss of such reasons and of a sense of personal control. Statuses such as "on the wagon" (i.e., alcoholic who has totally forsworn alcohol), "virgin", "dieter", and "decent moral person" all come readily to mind here. For some persons holding such conceptions of themselves, one transgression may result for them in a loss of the relevant status, may be a "fall" (see Camus' excellent and pertinent novel by this title) of sometimes drastic degrading implications. Subsequent to this fall, the status, which previously served as an important reason to refrain, is lost, and the person may abandon himself to the formerly proscribed behavior and feel like he has lost all personal control in this respect. For example, a virgin, whose previous sacredly-held intent had been to reserve sexual relations for marriage might, subsequent to being raped, take it that she is a new and drastically degraded type of person, and abandon herself to numerous, casual sexual encounters.

It is often alleged that the "disease" of alcoholism "causes" people to "lose control" after the first drink. In effect, this view has it, the person is no more a chooser of his actions than is an individual with a neural disease a chooser of his tremors. From the present point of view, the loss of control in question is of a quite different sort. The first point in this analysis is that the individual who regards himself as both an "alcoholic" and "on the wagon" (in the Alcoholics Anonymous senses of these terms) ordinarily makes his decision *prior to the first drink*. It is not that he literally *can't* stop after the first drink, that he is at that point "taken over by the disease". It is that he *doesn't* stop because, like the person who has made the first move in a board game, he has at that point *already decided upon a course of action*. The second point is that, with the taking of the first drink, indeed the first sip, he has often in his

own view already lost one status and gained a new one. Where he was "on the wagon", he has now "lapsed". Where he was "in control" he is now "out of control". Where he was "successful", he is now a "failure". People who struggle with weight problems, who tend on the whole to be more articulate about their problem than those who struggle with alcohol, frequently report a devastating sense of "I'm a failure" after one dietary lapse, and subsequently abandon themselves to overeating.

Therapeutic question: An old slogan has it that "one swallow doth not a summer make". If my client is struggling with status loss problems, how may I help him to see that "one transgression doth not a 'failure', or a 'slut', or an 'evil person', make?" And how might I help him or her to a saner, more constructive, more responsible reaction to his (ordinarily inevitable) failures?

10. *The individual takes it that he is unchangeable.* Wishnie (1977) quotes one of his clients as saying to him, "Once a junkie, always a junkie", and goes on to note how this sort of conviction of unchangeability is highly characteristic of impulsive individuals. The thinking here is again a species of victim thinking. What one *is* is fixed—it is one's "nature", one's "character"—and there is little point in trying to change oneself. Even if one is able to manage a period of non-problematic behavior, one's self-concept does not change. The thinking, rather, is that "I *am* alcoholic, but I am not drinking right now", or "I am a loser, but I seem to be on a run of luck", or "I am a slut, but I've been on my good behavior lately". With this sort of thinking comes a corresponding lack of reason to constrain oneself in the face of temptation: "After all, sooner or later, I'll revert to type, so why should I pass up this opportunity?"

Therapeutic question: If this be the case for my client, how might I go about undermining the negative identity concepts which my client entertains? Can I marshal evidence to realistically make a case to him that "You never were that sort of person"? If this is not possible, can I make a realistic case that, "You once may have been that sort of person, but you have already ceased to be that and have become a different sort of person"? If these are both not possible, how might I introduce him to the notion that "Because you once behaved (here we have reason to shift from character language to behavior language) a certain way, it does not follow that you are in some mysterious way doomed to continue to behave that way"?

### *Some Final Reminders About Reasons*

In concluding this section, it is important to keep two further things in mind. The first of these is that *reasons are not constant states of*

*nature*. A man whose relationship with his wife is such one day that he has reason to drink (e.g., she has declared that she is leaving him), may find the next day that this relationship has changed in such fashion that he has reason not to drink (e.g., she promises to stay if he will stop drinking and go to marital counseling with her). Reasons, with their groundedness in personal circumstances and personal history, are changeable.

The second point which merits a reminder here is that many individuals, with respect to their problematic temptations, have a *balance of reasons* pro and con. That is, these individuals have some reasons to engage in the action, and some reasons to refrain. If they act on the temptation, it reflects the fact that reasons for outweigh reasons against. The pragmatic upshot of this reminder is that in therapy, we are often not starting from "ground zero" with a client; i.e., we are not dealing with a person who has *no motivation* to behave otherwise. Rather, we are often engaged in the business of helping individuals to *tip the balance* in a favorable direction. This fact is grounds for conceiving our prospects for success more optimistically than if we entertain the characterization of impulsive persons as "unmotivated" in some blanket sense of this term.

#### But Why Doesn't the Impulsive Individual Even Stop and Think?

To this point, what has been dealt with explicitly is why it is that certain persons would be disposed, enduringly or temporarily, to engage in acts destructive to themselves and others. What has not been dealt with explicitly is the question of why they would do so in so precipitous a fashion. Given the consequentiality of their actions, why wouldn't they at least stop and think?

For starters here, let us reflect on the following. Contrary to what some of our recognized experts on the topic allege (e.g., Janis and Mann, 1977), the most casual observation reveals that most decision-making is very speedy and quick in execution. There is very little in the way of reflection and the giving of consideration to alternatives. We do not, as I noted earlier, deliberate very much about whether or not to go to work each day, whether or not we shall keep our daily appointments and commitments, and so forth. In fact, as I also noted, where an individual does seem prone to stop and think about every decision, the public at large and the mental health community tend to see this as an aberration—indecisiveness.

Casual observation and thought reveals something further. The situations in which we do ordinarily stop and think are ones in which *there are alternative possibilities of roughly equal weighting*. And the situations in which we do not ordinarily stop and think are ones in

which, for us, *one possibility clearly outweighs another*, and the fact that we do not ordinarily stop and think is therefore reflective of the fact that most of us ordinarily know what we want most, and are quick to recognize and act on opportunities to get that something. A man who loves jelly beans above all else will deliberate far less at the candy counter than the man who loves equally all sorts of different candies. From this standpoint, *it is expectable, and not surprising*, that a person whose reasons *for* acting in some problematic fashion clearly outweigh his reasons *against*, will ordinarily act with relatively little deliberation.

Still, however, a critic of his behavior might reply: "But look, this impulsive person is engaging in a very consequential act, with very serious drawbacks. The act is patently immoral. And he could lose his job, his marriage, his health, his future, and even his life if he continues in this fashion. I see what you are saying about how, for him, given his view of things, his reasons for clearly outweigh his reasons against, and so it is *unsurprising* that he acts precipitously. But still, in reality, there *are* serious drawbacks to his behavior. Apart from what is expectable, there remains a question as to why an individual would not even give pause and *look at* such drawbacks, as most persons would."

For some impulsive individuals, the response to this criticism is: "Stop and look at *what*?" If one examines their lives and circumstances, there is *in fact* little to consider were they to stop and think. They have very little in the way of relationships, job, possessions, community standing, and believable possibilities that constitute "something to lose". They have few or no personal goals that destructive actions would interfere with. They may factually live in an "eat or be eaten" world where altruism, justice, and planning a future would strike the most unjaded of observers as questionable life tactics. For some in fact, life itself will seem little to lose. In short, were they to stop and look, there would be very, very little to look *at*.

For example, one very impulsive young man whom I saw a number of years ago—I shall call him "Tony"—came to the crisis unit where I worked in Boulder, Colorado shortly after arriving in town. He had come to Boulder from the barrio of Los Angeles, where in the course of growing up he had lost his mother, been physically abused by his alcoholic father, and spent a number of nights as a child sleeping in the gutter under the family car in order to avoid his father's rage. He had left Los Angeles after an incident in which he and his best friend had been chased by members of a youth gang. Tony escaped. His friend was caught and knifed to death. Upon his arrival in Boulder, Tony had almost nothing of value to go back home to; and nothing in Boulder—no job, no relationships, no particular salable skills, no



community standing. He was at that point mostly a badly frightened young man in a strange (and to him, likely malevolent) new town.

Persons such as Tony certainly do need to stop and think, to be more critical of their actions before engaging in them. They certainly could benefit from therapies such as Meichenbaum's (1977) self-instruction therapy, where there is an explicit attempt to get persons to stop and think when problematically tempted. But what they need much more fundamentally is to create or discover a new world to live in. If stopping and thinking is to make any difference at all in their behavior, they must be embedded in a world—a network of relations to other persons, to future possibilities, and to self—which does constitute "something to lose". The leverage afforded by the therapy hour to help such persons achieve this is, I believe, precious small but real.

Going back to my reply to the criticism above, for other impulsive persons, there is indeed much that they could look at should they stop and think more. They have a great deal to lose in the way of relationship, job, community standing, and future possibilities, and one can see that they care deeply about all of these. The question, "Why don't they stop and *at least really consider* these before acting?" becomes a more meaningful question for these persons. Why doesn't the impulsive administrator stop and give due consideration before making a crucial managerial decision? Why doesn't the respected wife and mother stop and give due consideration before engaging in an act of shoplifting? Why doesn't the employed husband and father whose job is on the line stop and give due consideration before going on a binge? All of these, the detached observer would say, would find that they have a great deal to lose if only they stopped and gave the matter serious scrutiny. Why don't they?

The general answer to this question is, I believe, simply that *at that moment, something else counts for more*. This represents an extension of the general logic of this paper: A person's reasons for doing something might outweigh not only his reasons for refraining, but also his reasons for even stopping and thinking about refraining.

Let me cite an example. Jane (pseudonym), a 45 year old psychiatric social worker, was frequently impulsive in her behavior. She had, with considerable personal pain and difficulty, managed to leave an unsatisfactory marriage, secure a professional graduate degree, and obtain a much-desired position in a reputable community mental health agency. At one point, she reported having strong sexual temptations in relation to her boss. She wished to approach him, and came extremely close to doing so on several occasions, but just barely managed to refrain from doing so.

Exploring these temptations, it was clear that Jane had a great deal to lose should she act on this temptation and she knew it. She would in all probability lose her valued job, find it impossible to secure other mental health employment locally, lose virtually all of her income and her apartment, incur disgrace among her colleagues, and react to herself with hatred. An unusually articulate woman, Jane related that at these times when she nearly approached her boss, her reasons to do so loomed very large and her reasons not to very small. She reported that she craved sexual and affectionate contact and accreditation from this rather attractive man; that she was finding the day-to-day sexual tension between them unbearable and just wanted "to get it over with"; that she was experiencing a great deal of tension and friction with her coworkers which could no doubt be eliminated through the probable loss of her job; and more. In the face of any realistic opportunity and any encouragement from this man, she said that she in fact would probably go to bed with him. At bottom, the picture which emerged was that she wanted something with this man so badly, something that she knew would not even be lasting—that she would not hesitate, would not even stop and think, if confronted with a realistic opportunity.

In my experience, the more behavioral, stop-and-think therapies such as Meichenbaum's are much more beneficial with the kind of clients I am now discussing. After all, if these persons can make themselves stop and think about the consequences, there are here real and important consequences they will discern. However, it is also important in such cases to carefully assess and to deal with therapeutically, the powerful reasons which the person has to behave problematically. Otherwise, even if one stops, thinks, and forebears, the sources of one's temptations ordinarily remain untouched.

## SUMMARY

In the foregoing account, I have attempted to provide an alternative view of impulsive actions and persons which seems to me both to better fit the facts and to heuristically suggest more and better psychotherapeutic courses of action than do our prevailing views. This view has as its core conception the simple notion that impulsive behavior is straightforwardly a special case of rational, intentional action which entails, like any other such action, an individual acting on that which he has stronger reason to act on. From this core notion, I then proceeded (a) to consider some of these stronger reasons to act, (b) to develop an extensive list of constraining reasons which impulsive individuals are often observed to lack, and (c) to develop an explanation of why impulsive individuals act as they do in so precipitous a fashion.

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# FATHER-DAUGHTER INCEST: DEGRADATION AND RECOVERY FROM DEGRADATION

Raymond M. Bergner

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## ABSTRACT

Father-daughter incest is a degradation. The purposes of this paper are (a) to articulate the concept of degradation, (b) to show precisely how the incestuous involvement of a child constitutes a degradation, and (c) to exploit the heuristic suggestiveness of this way of viewing incest by describing numerous therapeutic strategies which may be employed to help incest survivors to recover from their degradation.

A young woman, as she both experiences father-daughter incest and thinks about what has befallen her, formulates for herself an answer to the vital question, "What does this make me?" She draws conclusions about what sort of a person, with what sort of human worth, eligibilities and future possibilities this sexual involvement has rendered her. Using

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the technical concept of a "degradation ceremony", (Garfinkel, 1957; Ossorio, 1976, 1978; Schwartz, 1979), I shall try in this article to document some of the more common and more important conclusions drawn by incest survivors, and the implications of these conclusions for their lives. Most importantly, I shall also describe numerous therapeutic strategies which are heuristically suggested by viewing incest as a degradation ceremony and which have proven effective in my own work with incest survivors. While father-daughter incest will be the main focus of this discussion, much of what is said here applies equally well to other incestuous misinvolvements of female and male children.

### THE CONCEPT OF A DEGRADATION CEREMONY

The concept of a degradation ceremony was initially formulated by Garfinkel (1957) and has been heavily employed by Descriptive Psychologists (e.g., Bergner, 1982, 1985; Ossorio, 1976, 1978; Schwartz, 1979) in their accounts of psychopathological phenomena. The paradigm cases of degradation ceremonies are formal public rituals in which the place or "*status*" of an individual in some community is drastically diminished or even eliminated. Examples of such rituals would be court martials, rites of excommunication, impeachment hearings, and the like. The essence of such ceremonies is that the individual in question, for reasons bearing on his or her (allegedly) discreditable conduct, is publicly declared to be "no longer one of us", no longer a member in good standing of this community. In lesser cases (e.g., demotions), he or she is declared to be still a member of the community, but one of lesser status. Unless the individual finds some way to effectively refuse these denunciations, he or she is rendered no longer *eligible* to participate in the community in question in the same way as before, and perhaps not at all. His or her entitlements, opportunities, and future possibilities are all radically curtailed. And, in the emotional sphere, the individual is now, as the bearer of his or her disqualifying stigma, provided with abundant reason for shame, depression, and anxiety.

Two important derivative (non-paradigm) cases must be mentioned here. The first is *non-ceremonial* degrading treatment of one person by another. Person A, by resort to the likes of insults, condescension, disregard, the stigmatizing employment of labels, etc., treats person B in a way which diminishes or "de-grades" the latter as a human being. The teacher who humiliates a student in front of a class, the husband who consistently treats his wife as irrational, and the therapist who patronizes his or her clients are all perpetrators of such informal degradation ceremonies.

The second derivative case is that of *private self-degradation ceremonies*. Here the individual *privately declares himself or herself* to be a certain sort of degraded person, e.g., a "slut" or a "loveless person" or an "evil person". In Camus' relevantly titled novel, *The Fall*, we observe a man who has always esteemed himself as a morally superior individual degrade himself as a hypocritical, morally inferior sham following his refusal to rescue a drowning man. With this self-degradation, numerous life changes ensue. From a participant in the community, he changes to a marginal, shadowy, introspective observer. He exiles himself; he becomes riddled with self-loathing; he is no longer in his own mind "one of them".

Father-daughter incest is almost always a degradation ceremony. In it, the parent subjects the child to degrading treatment. All but the most remarkable or fortunate of children prove unable to refuse this degradation; they suffer a "fall" in Camus' sense of that term. They are diminished. They are devalued. They are no longer able to assume a place with other persons as whole, good, fully entitled members in good standing of the human community. They have, to borrow a religious metaphor, "fallen out of grace", and in the bargain acquired the stigmas, eligibilities, future prospects, and emotional states that go with this fallen status.

In every case that I am aware of, the degradations that have ensued from incestuous involvement of a child have been *multiple*. The child suffers not one degradation, but several, and these will tend to vary from person to person. In the pages that follow, I shall attempt to articulate the precise nature of the five most common of these degradations. I shall do so by describing the precise *statuses* which have been acquired as a result of the incest. Following each such description, I shall make some therapeutic recommendations. Each of these has the form, as one might logically predict, of an attempt at restoration of lost status—of reinstatement of the individual as a fully entitled member in good standing of the human community.

## DEGRADATION #1:

### Acquisition of the Status "Devalued Sexual Goods"

With the advent of sexual abuse from her father, a young woman may undergo a degradation in which she ceases to regard herself as sexually whole, good, and valuable. Now, via the sexual involvement, she is "used", sexually devalued, "tainted", "dirty". She can no longer stand out in the world among others and present herself honestly as "one of them", for she is the bearer of a shameful, stigmatizing, disqualifying secret.

The young woman, as one immersed in a culture, is a sharer in certain cultural value assignments. Weakened, but far from dead, are some of the following such assignments. (a) A woman who is a virgin is more estimable and worthy than one who is not. The loss of her virginity, and even lesser forms of sexual activity such as petting, should they occur outside the context of marriage, or at least a love relationship, represent a degradation. She may now be regarded as "easy" or "cheap". (b) If a woman has consented to the loss of her virginity or to other sexual acts, her status as a responsible perpetrator renders her fully culpable; she has deliberately incurred her degradation. However, even if she did *not* consent, even if she was the unwilling victim of another's sexual coercion, she is still often regarded as used and devalued. One has only to think here of the turning away of many husbands and lovers upon learning that their partners have been raped. (c) If a woman has had her sexual initiation in the context of her family, thus violating the incest taboo, this is basis for further devaluation. (d) Finally, Goffman (1963) long ago noted that, in the value-assigning activities of a culture, stigma is transmittable. With the advent of sexual abuse, a young woman's father becomes in the eyes of a culture a heavily stigmatized "sexual deviant". She becomes, therefore, the "issue of a sexual deviant", which is itself a stigma. Not only is the young woman now a sharer by birth in her father's stigma, but this perception may also lend an almost genetic, "bad seed" aura to her supposed sexual badness.

I noted above that in our culture, a young woman's consenting participation tends to confer on her full culpability for sexual acts. In my experience, it does seem to be the case that almost all incest survivors *perceive* that they were responsible for the incestuous happenings. The degree of such perceived responsibility varies quite widely, from almost total responsibility to *almost* none. This perception may be based on a survivor's doubts as to whether or not she was seductive with her father, on having cooperated or taken an active role in the sexual encounters, on having received money or favors from her father subsequent to sexual contacts, on not having reported the incest sooner, on having experienced a measure of enjoyment, and on other (often quite flimsy) evidential bases. Whatever the basis, this perception of responsibility deepens the conviction of sexual devaluation and stigma.

Assigning oneself the status of damaged, sexually devalued goods logically entails a number of devastating consequences. To the degree that one feels responsible for the incestuous happenings, there is a corresponding *guilt*. The status assignment itself is an instance (not a consequence) of *low self-esteem*: to view oneself in this manner *is* to esteem oneself poorly. This degraded, devalued conception of self carries with it a corresponding *loss of a sense of eligibility* for relationships with



fully valued "normals" and, consequently, continual reason for *depression*. And finally, all of this is reason to "take what one can get", what one's devalued "social market value" will bring. In many cases, this is a logical underpinning for brief or prolonged *promiscuity*; in extreme cases, it is a basis for *prostitution*. Both of these will be seen as "in character" and will serve as further confirmation of this sexually devalued, damaged identity.

### *Therapeutic Interventions: "Devalued Sexual Goods"*

*Reformulate the Incest Survivor's Sexual Participation.* Since the individual who has been subjected to incestuous involvement almost invariably overestimates her personal responsibility for what has transpired, a key task will be to help her to reconstrue herself as a *victim*, not a *perpetrator*, in this regard. The task here is to help the individual to see or to recall, evidence permitting, that she did not initiate or seek the contact, that she in fact took great pains to avoid it, that she was under great pressure not to report what was happening, that she was a great deal less physically and intellectually powerful than her father, that it was he who possessed the parental awareness and responsibilities, and so forth.

For example, one rather self-blaming incest survivor brought a picture of herself at age 10 to our session one day. Trying to put this woman into a more detached, observer position, I instructed her to look at the picture and began to talk to her about "that little girl" in the picture. I asked her how strong that little girl was compared to her, and how fast, and how smart, and how aware of sexual meanings, etc. In response to my questions, she responded that she was currently far stronger, more capable, more aware, etc. than "that little girl". At length, I instructed her to talk to that little girl in the picture and tell her that she could have fended off her 180 pound father, that she could have found a hiding place that he could not, that she could have found a way to outwit her father, and so forth. Having reviewed her factual powers as a child, she found herself unable to look at the picture and seriously accuse "that little girl" of being responsible for the incest.

There is at times a surprising degree of resistance to this idea of victimization and non-responsibility. The individual has stronger reason to hold herself responsible than to declare herself innocent. Such reasons, needless to say, must be assessed and dealt with. For some individuals, acknowledging their victimization and powerlessness rekindles strong feelings of helplessness, and causes them to feel *currently* helpless. Other individuals have been socialized into a personal ideology in which somehow, even if the evidence doesn't stack up this

way, everything is *always* their fault. For others yet, family loyalty functions as resistance (Gelinias, 1983): to declare themselves innocent and their fathers responsible is to violate an important commitment to family loyalty.

There are on occasion instances where a girl does indeed cooperate and even seek involvement with her father. In such cases, what needs to be assessed is just exactly *what she was seeking in doing so*, i.e., the *significance* of her actions. For example, in one such case, a young woman's characterization of what she was doing was "seeking out Dad for sex". And what sort of person would do that? Well, somebody "dirty". When questioned, however, about what she was doing by "seeking out Dad for sex", a very different formulation emerged. Essentially, she was seeking affection from her father in the only way he made it available (i.e., sexually), and this in the contexts of an unavailable mother and of a child's non-conception of sexuality and its adult implications. What sort of a child would do that? Well, any child who wanted parental love and found herself in those precise circumstances. When the significance of what young women are doing when they cooperate in the incest is closely examined, it usually proves quite possible to generate new, evidentially-based descriptions of their actions which are far less degrading than their current, usually concretely sexual ones.

*Reformulate the Father's Actions.* It is often the case that the incest survivor has a very concrete formulation not only of her own actions, but also of her father's actions. Her view is that he was *simply* sexually abusing her, simply using her in an illicit way to achieve sexual gratification. And what this makes her is a sexual *object* or sexual *plaything* (cf. the dehumanized "goods" in "devalued sexual goods").

However, as clinicians we know from our experience and from our literature (e.g., Forward and Buck, 1979) that the actions of the abusing father have other significances. He is not *simply* reducing sexual tensions. He may also be exacting revenge, seeking love, seeking nurturance, seeking accreditation as a male sexual being, and more.

It is not usually possible, because of the daughter's limited information about her father, to get adequate data to build a case about the significance of the father's actions. However, when this can be done, it may be possible to reformulate the actions of the father in a way that is far more status enhancing to the daughter. For example, in one case, it was possible to reformulate a father's actions from a case of "just using me to get his rocks off" to a case of his having been emotionally abandoned and sexually discredited by mother and turning in a very needy way to daughter for love, emotional sustenance and accreditation as a sexual man. While this in no way excused or justified his actions,

this portrayal rewrote the daughter's personal history in such fashion that she *never was merely a used sexual plaything*. Rather, she was also a provider of rather desperately needed love and emotional support to her father and an accreditator of him as a man. This, it goes without saying, is a status of far greater dignity, humanity, power, and eligibility than that of "mere object of sexual release". (I wish to underscore that there was no question in this case of condoning or excusing this father's actions. The entire point was to salvage from this tragedy the accrediting elements that were there.)

*Disqualifying Other Degraders.* Thus far I have been focusing on private self-degradations. What may also have to be dealt with are degradations attempted by other persons. A general strategy here is to attempt in whatever way, evidence permitting, to disqualify these others as competent, reasonable, and thus *credible* critics with respect to these attempted degradations.

For example, the mother of one adolescent girl held her daughter to blame for her previous sexual involvement with the father. The evidence suggested the following picture of reality, which was presented to the daughter: "Your mother would have to see it that way. As you've described her, she has let herself become tremendously dependent on your father in financial and all sorts of other ways. Her dependence seems so enormous that she cannot even envision herself surviving without him. If she saw your father as to blame, she would have to leave him. But leaving him is unthinkable for her, and so she simply can't see it that way—can't see things as they are." Here, without attacking mother needlessly, a portrayal of reality was provided in which mother's indictments of the daughter were disqualified as legitimate, well-founded ones. The mother could not be counted a status-assigner to be taken seriously in this regard because she had powerful interests that dictated that she not see things as they actually were.

Not only the status assignments of individuals in the client's life, but also some of the status assignments of our very culture may need to be undermined. Cultural assumptions such as those which devalue the loss of virginity (in women but not in men), those which blame and devalue the victims of certain sorts of mistreatment, and those which devalue the offspring of stigmatized individuals do not bear well close scrutiny and may profitably be examined and called into question.

*Normalize.* One of the more painful and stigmatizing beliefs that the incest victim labors under is that she is the only one, or one of the very few, who has undergone the secret and shameful things that she has. This illusion is beautifully dispelled in groups for incest survivors. It is

also dispelled, but in a weaker way, by the increasing attention that sexual abuse is receiving in the popular press, the thrust of which is that such abuse is so widespread as to constitute an epidemic.

In individual therapy, however, it remains important to convey the fact that the client is not unusual in having been sexually abused—that many, many others have been through what she has been through. There are many ways to do this. For example, the client might be encouraged to read some of the better autobiographical accounts of incest victimization, such as *Daddy's Girl*, (Allen, 1980). Or she might be instructed, if a college woman, to look around an auditorium and realize that likely one woman in seven there has been sexually abused (Finkelhor, 1979).

The incest survivor's ignorance of the extent to which her experience is a shared one extends to other actions and reactions surrounding the incest. For example, many clients experience intense guilt and shame because they did not reveal their father's actions to others, and thus bring them to an end. And their (usually implicit) belief is that any "decent, normal girl" would have done so. To be informed that secretiveness is the rule, not the exception, for other girls, and that the reasons for this secretiveness are also shared by other girls, can effectively undermine some of the sense of difference, stigma, and degradation that the incest survivor experiences.

## DEGRADATION #2:

### Acquisition of the Status "Powerless"

In dealing with incest survivors, we are usually dealing with persons who have been overpowered to an extraordinary degree. During those developmental years when their conceptions of autonomy and personal power were being formulated, they were subject often to an array of overwhelming circumstances. First, they were usually overpowered in the sexual activity itself. Second, they were often effectively restricted from exerting power to extricate themselves from their predicament; e.g., from telling their mothers or anyone else who might have been able to help them. They were threatened into silence—told that they would be physically harmed, that the family would break up and Dad go to jail, that mom would have a nervous breakdown, and more. Third, in some cases, they may have been generally overpowered by a parent or parents who were physically abusive, verbally adept at turning blame back on them, and/or intolerant of any dissent from them. Certainly, overall histories of living in terror in their own families, of being isolated, and

of being unable to find any effective, powerful means of altering their predicaments are the rule for sexually abused children.

It is little wonder, then, that these individuals typically emerge from their families with conceptions of themselves as profoundly powerless, vulnerable, and endangered. Their predicaments have been quite like those of Seligman's (1975) experimental animals who, being prevented from learning to solve and cope with threats, emerged with a thoroughgoing "learned helplessness". Geiser (1981) puts the matter well when he says, "Just as a person whose house has been burglarized feels a sense of having been psychologically violated, so the child incest victim feels overwhelmed, vulnerable, and violated. She may lose her confidence in her own ability to protect herself in the future; and feel she is at the mercy of outside forces" (p. 297).

The consequences of such a conception of oneself as powerless and violatable are numerous and important. If self is so vulnerable, then it follows that others are potentially overwhelming, and relationships with them must be approached in an appeasing, nonconfrontational fashion. For the incest survivor, then, life must be curtailed, personal goals and desires forsworn, and issues left unaddressed in order to avoid confrontation, resulting in *depression* and *anger*. Such an appeasing approach will also at times result in continual exploitation and misuse at the hands of others. The incest survivor's sense of vulnerability also leads to certain situations reminiscent of the earlier overwhelming ones (e.g., sexual encounters with factually safe, nonexploitative men) provoking *fear* and even *panic*. *Mistrust* must become an issue: when one's sense of self is that one is "alone and helpless in a potentially hostile world" (Horney, 1945), one must, like a spy in enemy territory, be continually on the lookout for possible dangers and continually live with one's guard up.

The basic goal here is to help the individual to a conception of herself, and to a *reality*, in which she is able to defend herself, to initiate assertive actions, and to steer her life course based on her own loves, wants, interests, values, and life goals even in the face of pressure from others to do otherwise. A parallel goal would be to help this individual to reformulate the world as a less menacing and overpowering place than her personal experience has given her reason to believe. Some of the means which I have found helpful in promoting such changes are the following.

### *Reviewing Factual Adult Powers*

It is ordinarily the case that the incest survivor has not revised her estimate of her factual powers and capabilities as an adult. In her mind,

she is no more powerful, capable, or resourceful than she was as a child during the period of abuse. In fact, of course, her physical strength, ability, and speed are usually far greater. Her intellectual capabilities for verbally defending herself, for problem-solving, for seeing and exploiting new resources, for sizing up developing situations, and more, are also far greater. She would do well, therefore, to bring her self-concept and her behavior more in line with these realities, and any way of bringing these facts home to her will be beneficial.

Subsequent to a session devoted largely to this goal, one client who had cowered in her father's presence for years, confronted him in a rather strong but constructive way. In response to his counterattack, she remained firm in her position, and more than held her own throughout the encounter. In our next session, after relating this incident, this woman reported that "all the time I was talking to him, I kept hearing your voice saying, 'You're not a little girl anymore. You are much bigger and you are much stronger, and knowing this was true was a source of tremendous confidence for me.'" Her revision of her estimation of her own powers proved a key contribution to her ability to confront her father, and this confrontation in turn proved to be an important turning point in this woman's ultimately successful therapy.

### *Assertiveness Training*

There is an extensive clinical literature on techniques for helping people to behave assertively and to view such behavior as desirable, acceptable, and moral (Alberti and Emmons, 1974; Goldfried and Davison, 1976). The promotion of assertiveness through observational learning, through behavioral rehearsal with feedback, through in vivo practice, through cognitive behavior rehearsal, and through education in its supporting ideologies are all promoted in this literature and have all proven in my experience beneficial practices when tailored to the specific needs, values, and capabilities of incest survivors. Since these matters are so much discussed elsewhere, I shall not discuss them further here.

### *Exploiting Other Entitling Statutes*

Years ago, it became apparent to me that there are a fair number of people who, while very non-assertive on their own behalf, could be quite forceful and effective on behalf of others such as their children, their clients, or members of oppressed minorities whose rights had been transgressed. This suggests that the whole matter of personal assertiveness is sometimes less a matter of skill possession than of

*entitlement*. These people were clearly not *unskilled* at defending personal rights; rather, they did not feel *entitled* to do so in their own behalf.

Any way in which an abused client can realize that she has statuses which are more entitling will be helpful in also conveying enhanced personal power. Statuses such as "dirty", "used", "evil", "ugly", "crazy", etc. will ordinarily convey low entitlement. They convey a sense of "who am I to assert my rights or wants with others? They are my betters, the okay "normals" of the world; I cannot presume to think that I have rights in relation to them, or that my wants would count for anything with them." Statuses such as "sexually okay", "basically good", "innocent", "rational", and any other status which has value for a particular client (e.g., "good writer", "sensitive to others", "devoted teacher", "devoted friend") will ordinarily convey greater entitlement, a greater sense of being a coequal member of the human community, and should therefore be promoted.

### DEGRADATION #3:

#### Acquisition of the Status "Provoked Without Redress"

The ongoing position of many abused individuals is that they have been degraded by another, and have never effectively undone the degradation or redressed the wrong done them. They stand degraded. They stand provoked. Their enduring status is that they are *provoked without redress*.

In my experience with rape victims, it has been my observation that those individuals who report the crime to the police, bring the whole matter to the courts, and successfully prosecute the offender generally do very well personally with respect to overcoming the ill effects of the rape. In effect, they successfully refuse the degradation attempted on them: their actions say, "This is *his* action; I not only had no consenting part in it, but I abhor it and have successfully made this case (status claim) in a public forum." They refuse, or in some good measure undo, the attempted degradation. They emerge with their (pre-rape) self-conception relatively intact; they experience comparatively little residual anger.

In contrast, those who are unwilling or unable to redress the wrongs done them do far worse. In effect, they "take" the degradation; they let it stand. Such individuals are left more degraded, and in comparison with their more retaliatory sisters, are left with far greater residual senses of fury and of powerlessness. To have let this sort of degradation stand without effective redress has proven very devastating for them.

All of this applies point for point to the incest survivor. If it is the case that she has been abused, but has never redressed this successfully,

then she stands (ordinarily) on an enduring basis in a certain relation to the world: degraded. Something humiliating and degrading has been done to her, and has been allowed to stand. The degradation has not been effectively refused or undone. She has unfinished business, and the legacy of this unfinished business is enduring degradation, anger, powerlessness, depression, and vengefulness.

### *Confrontation of the Abusive Father*

The first, most direct, and most obvious therapeutic goal in this regard would be to help the client to confront her father about his past actions. The client would do well here to express her outrage, her repudiation of the sexual contacts, her disaffection at her betrayal by the father, her utter disappointment with this whole turn of the father-daughter relationship. The critical therapeutic elements in this stand against her father have little to do with hostility catharsis. Rather, they are (a) a repudiation of the father's actions, (b) a self-affirming declaration that those actions were not hers and "not her" (i.e., not an expression of the sort of person she is) and (c) yet another self-affirming declaration to the effect that she will not in the future stand for this or other sorts of degradations. The critical elements here have everything to do with self-affirmation and the undoing of degradation.

The hoped-for response on the part of the father would be a sincere statement of apology. Such an apology is a "mea culpa", a statement that "it is *my sin and my fault, not yours*". It is an exoneration and accreditation of the daughter and, no doubt for this reason, seems to be an almost universally desired response on the part of daughters. (For those daughters who wish restoration of a relationship with their fathers, it is also an important move to such restoration.) However, such a response is in my experience rarely forthcoming. It therefore behooves the therapist whose client undertakes such a confrontation both to insulate the client in advance from her father's lack of response and to affirm lavishly her actions and the status claims inherent in them. It is the therapist's task, in short, to provide what the father has not provided in his response.

I do not mean to imply here that such a confrontation must always occur if therapy is to be successful. I mean only that undertaken successfully, it can be one long, often dramatic step to recovery.

### *Self-Affirmation with Others*

With respect to this "provoked without redress" status, another course of action which may be promoted by the therapist is that the client tell her story to *very carefully selected* others, e.g., to her spouse (if she has



not already), to her best friend or friends, to her mother, to a sibling—in short, to trustworthy sensitive persons with whom she has the sort of relationship where this could be shared, and where a desirable response could be anticipated.

Often enough (obviously, there are no guarantees here), the response of sensitive, supportive intimates to disclosures about sexual abuse are moral outrage against the abusing parent, deep sympathy for the abused victim, and general confirmation of her as one who was entitled to better parental care. The individual's story is treated by the sensitive other as a self-affirming one, and he or she lends affirmation to the incest survivor. Obviously, this is precisely one of the things which ought to occur in the relationship with the therapist: the therapist serves in this precise role of affirming, accrediting other.

### *Reconstructing the Degradation/Provocation*

In everyday life, yet another way to deal with standing provocations is that of reformulating the provocation as either less provocative than one had initially taken it to be, or even as non-provocative. This accomplished, one stands less provoked or unprovoked (Bergner, 1983; Ellis, 1962, 1973). In the discussion above of therapeutic responses to the "devalued sexual goods" status (pp. 289-290), I mentioned the tactic of reformulating the father's actions. I need only note here that such reformulations are also instances in which the father's actions are reconstrued as less provocative, and thus the tactics discussed there are also responsive to this "provoked without redress" status.

## DEGRADATION #4:

### Acquisition of the Status "Unloved and Unlovable"

Classical discussions of love have tended to distinguish types of love (e.g., romantic love vs. filial love, eros vs. agape, etc.). If one searches for some common element in all these types, some element that transcends all of them, this element would seem to be something like "the wanting and choosing of another's good *because it is that other's good*". If John is to be said to love Mary, a core requirement would seem to be that he has a relation to her such that her best interests are a valued end for him (as opposed to being only a means to his own ends). And, since "actions speak louder than words" (or feelings), the evidence par excellence that he loves her is that he *acts* in her best interests. This is a discrimination that people, including relatively young people, make. They discriminate, and attach a great deal of importance to, for example,

gifts which are clearly bought for them in contrast with those bought in some way for the giver. They discriminate actions which seem to be performed in their best interests from ones that seem motivated by self-interest of the actor. Such actions far outweigh verbal declarations for most persons in their assessment of how much they are loved by another individual.

Obviously, a child subjected to incestuous involvement with a parent has grounds to draw rather devastating conclusions about the degree to which she is loved. As her awareness of human meanings and sexual mores develop, it becomes only too clear that in a most fundamental way her best interests are being betrayed, while her father's desires and interests are given priority over hers. In some number of cases, the betrayal of her best interests extends to her mother, who may be using her in other ways (see the following section on parentification) and who may even be aware of the father's actions, yet permit them to continue. Barring some other favorable state of affairs (e.g., a teacher, grandparent, or neighbor who takes a very special interest in her), it is easy to see how a conception of herself as unloved and unlovable may develop in such circumstances. She is someone, it seems to her, whom "*not even a parent can love*". She is not the sort of person whose own good, whose own best interests, *could be* a valued end for another.

Such a conclusion about herself, obviously, has numerous implications. Among the more important of these are, first of all, *low self esteem*. To be "not one whose best interests could be an end for another", to be an unlovable person, *is* to esteem oneself poorly. It is also to take it that one is *ineligible for love*. And it is to have reason to *mistrust* anything which could be taken as a genuine interest in oneself for one's own sake. The motivation of an interested teacher or neighbor are suspect; in contrast with the policy of the judicial system, the friend must be regarded as guilty (i.e., exploitative) until proven innocent (i.e., caring). Emotional sequelae of these states of affairs will include *depression, fear, and loathing*.

The general therapeutic goal here is that the individual reformulate her own status as "one who is lovable, whose best interests could be the genuine concern of another human being". Applying a general truth about change in self-conception here, it is strategically preferable (evidence permitting) to stake out a position that the client was or is *already* loved, and is therefore lovable, than it is to stake out a position that the client has never been loved, but still may be in the future (Farber, 1981). The former secures her status, makes it a fact; the latter renders it merely a hope. The following suggestions are proffered with this heuristic in mind.

### *Therapist Care*

One key antidote to the incest survivor's unlovable status is simply that the therapist have, and be able to help the client see that he or she has, a genuine interest in her well being for her sake. There is a voluminous literature on the general subject of therapist care (e.g., Driscoll, 1984; Ossorio, 1976; Rogers, 1951, 1980), and I shall here make only a few brief points.

It is obvious that one cannot "turn on" a genuine interest in another's best interests by a free act. Achieving such an interest, achieving care, seems more in the nature of a happening than an intentional act. Fortunately, in general and for us as therapists, achieving an intimate knowledge of another, as one ordinarily does when hearing an individual's plight and personal history in the course of therapy, usually causes us to have such an attitude. Should it not develop, the barriers to our genuinely caring for the client will often be removed by becoming aware of what is behind the client's "off-putting" anger or cynicism or flip attitude, or dealing with our own countertransferences.

In any event, while such care may not be an indispensable ingredient in some therapy, (e.g., some crisis work, or some therapy where the deficit is more an educational one), it is certainly an indispensable ingredient in the relationship of the therapist to the incest survivor, and most especially one who has formulated her status as that of an unlovable person. Such a relationship is itself an ongoing "accreditation ceremony" (Garfinkel, 1957; Ossorio, 1976; Schwartz, 1979), an ongoing relationship in which she truly *is*, and is *treated as*, one whose best interests are a valued and primary concern for another. I think it not at all radical to suggest that, if one is unable to genuinely care for a particular incest survivor, it is best to refer this individual to another therapist.

### *Underscoring Parental Care That Was There*

At times, the data revealed in a reaccounting of her personal history indicates a radical overall lack of caring on the part of the incest survivor's parents. There simply is little evidence to suggest that the child's interests constituted any sort of priority for the parents. Often enough, however, the evidence suggests that there was love, sometimes considerable love, even on the part of the abusing parent. Should the latter picture emerge in cases where the incest survivor has taken it that she was not loved, it behooves the therapist to underscore this care at a point where it appears that the client can hear it. The basic

therapeutic message here is: "You were loved, even though you were also betrayed in a basic way; and to have been loved is to be lovable."

For example, one of my abused clients was tormented and obsessed by a question as to whether or not her abusive father loved her. For her, the answer to this basic question turned on the answer to a second question: "Did my father act with malice; did he knowingly and willingly do something he knew to be very harmful to me?" Detailed review of her overall relationship with her father, a single parent who raised her and seven other children, indicated a father who in almost every other respect save the incest acted in the best interests of this woman and her siblings, and went to rather heroic extremes to do so. For example, he took a very active interest in how she was doing and feeling, encouraged her in activities of her choosing, worked extremely hard to raise eight children by himself, and more. Finally, this man seemed monumentally ignorant of female meanings, perspectives, and implications in the sexual area. He was, for example, embarrassingly crass in his sexual talk around women without seeming to be aware of how this would be taken. From this and considerably more evidence, a portrait emerged of this man as someone who loved his daughter (and her siblings) a great deal and who generally worked very hard in her behalf. His incestuous involvement with her, while a basic violation of the parental relationship and in no way excusable or condonable, did occur, it seemed, in the context of a radical stupidity as to its consequences and implications for his daughter. It did not seem a deliberate planful act of hatred or malice toward her. This portrait proved tremendously reassuring to the daughter, and seemed to lay to rest her longstanding preoccupation with questions about his malice, and therefore love, for her.

## DEGRADATION #5:

### Acquisition of the Status, "Obligated Caretaker, Unentitled to Reciprocity"

A number of previous authors have noted that incestuous father-daughter involvements often evolve in the context of a family pattern of parentification (see e.g., Gelin, 1983, for an unusually clear and excellent account). They occur in familial structural patterns in which father is a rather needy, dependent, underfunctioning individual, mother has become depleted in her efforts to provide care for father and children, and daughter has therefore been charged excessively with adult, caretaker roles and responsibilities. Her premier role assignment in the family is to give care to mother, to dad, and to her brothers and sisters. A key part of this role is to be selfless—to be sensitive to others' needs

and responsive to them, but not to consult herself regarding what she might personally need or want. The ethical value par excellence in this role enactment is the obligation to respond to a needy other.

It is not difficult to envision how incest might more easily occur in such a family. Mother, depleted, abdicates her maternal roles and responsibilities, while daughter in turn assumes these. The daughter becomes, in effect, the spouse vis-a-vis the father. The father-daughter relationship becomes something much closer to a spouse-spouse relationship, and the transactions which occur come to reflect this relational change (e.g., father, when he comes home, may recount to his daughter, not to his wife, what a rough day it has been). In such circumstances, sexual transactions will seem less a radical violation and departure, and more a natural extension of other adult-adult spouse roles already being enacted. Further, the daughter, already heavily socialized in a way of being in which she is to take care of others' needs and make them feel better, but not to extend the same beneficence to herself, will be much more likely than the average daughter to accommodate her father in this one further request.

The status which emerges from such a personal history, is one of "obligated caretaker, unentitled to reciprocity". One's place in this world is that of an obligated giver, not a co-entitled giver and receiver. The eligibilities for relationships are more those of a personal servant or nurse than those of a co-equal peer. Having been socialized so heavily in this role, the incest survivor's role repertoire is often limited; roles of friend, peer, and self-defender, while needed, are usually underdeveloped. Finally, the danger is created here of a recapitulation in the next generation of a family pattern conducive to incest: viz., the danger that she will marry her natural complement, a needy, underfunctioning man, eventually become depleted in her efforts to give, and abdicate the role of caretaker to her daughter (Gelinas, 1983).

#### *Therapeutic Interventions: Altering the Obligated Caretaker Status*

*Consciousness-Raising.* What I have been describing will often constitute the reflexively accepted "given" for the incest survivor; it is her way of being in the world and has been hers for so long that it is the unconsciously accepted "only way to be" for her. Thus, an obvious beginning step toward liberation will be to raise her consciousness about what it is she is doing. Therapeutic efforts here would be devoted to bringing to the client's awareness such facts as that she was as a child excessively charged with adult caretaker roles, that this represents a contrast to other children, that she has brought into the present a tendency to adopt caretaker roles, that this represents an "I don't count,

you do" stance vis-a-vis others, that she depletes herself in her efforts to take on the responsibilities of others, that she renders herself prone to exploitation, that her natural complement will be a male who wants to be taken care of, and so forth. These sorts of realities need to be brought to the fore, and perhaps crystallized in the form of a concrete image, e.g., the notion of "caretaker" itself, which can be used over and over as a central problem and theme of the therapy.

*Using Caretaker Values to Alter Caretaker Ways of Being.* It is a truism that you can only begin where the client is (Driscoll, 1984). You cannot expect to get far by assuming or expecting the client to act on reasons or values or motives that are not hers. Thus, a worthwhile endeavor will be to use existing caretaker values as motivational bases for change. What these are in any given case is a matter to be assessed. But, assuming the usual constellation of reasons, values, and perspectives outlined above, the following represent some usually beneficial lines of therapeutic endeavor for mobilizing existing motivations in the cause of personal liberation.

Caretakers tend usually to be especially sensitive to the needs of children. With those who are or wish to be parents, one can often ask them if they want *their* children to be caretakers—if they want them to be people who neglect themselves and their own happiness in a life of service to others? The only answer I have ever gotten to this line of questioning is "No!" And I have then followed up with remarks to the effect that what we want our children to be reflects *our own deepest values*.

Caretakers often do not *give* one important thing. They do not give others the opportunity *to give to them*, and thereby to be needed and important to them. Their value for giving and their knowledge of the importance of feeling needed can here be evoked to motivate and legitimize their beginning efforts to allow others to give to them.

Caretakers are interested in the welfare and best interests of others. If it can be sensitively brought home to them that their caretaking activities at times *deprive* others of motivations to help themselves and of opportunities to be competent and responsible, this can prove an important reason to change. The message here is along the lines that, in certain circumstances, the *best help is not to help*.

Caretakers are usually permitted to carry on in their caretaking ways with the unquestioned assumption that virtue is on their side. One way of tapping into their value structures to mobilize motivation would be to "poison this well" at a point where clinical judgement indicates that this would not be damaging. For example, a caretaker's value for not being grandiose may be tapped into by showing her the grandiosity of

her stance. "What makes you think that you can support the weight of the entire world on your shoulders? Just who do you think you are, Atlas?", is one possible sort of joking-but-not-really-joking appeal. Another would be to point out to her, in line with the previous paragraphs, that she is at times a "thief", and that what she is robbing are others' motivations, responsibilities, and opportunities for enhancing competence.

*Education and Practice in Alternative Role Behaviors.* Being a competent caretaker is *part* of being a friend or a lover. It is a value, it is a competence to be preserved. The relational distortion occurs if the relationship is lopsided, that is, if caretaking is engaged in too extensively by one partner toward the other without the reciprocal being enacted enough in the relationship, and without other transactions occurring (e.g., mutual decision making, having fun together, intimate disclosure between equals, lovemaking, etc.) This broader relational territory can be related to the incest survivor/caretaker and, when the motivation seems there, *observation* of others who transact such roles, and *participation* in such activities may be encouraged.

*Exploiting Other Entitling Statuses.* Finally, a reminder here (cf. p. 300): positive changes in other statuses will help the incest survivor to alter this rather self-negating, servile, caretaker status. If the incest survivor comes to realize that she is, for example, loved, lovable, powerful, innocent of sexual wrongdoing, etc., it will ordinarily become harder for her to see herself as eligible only to stake out the "I don't count—you do" stance inherent in the caretaker role.

## SUMMARY

There is considerable explanatory and practical therapeutic value in viewing incest as a degradation. Through incest, a woman's formulation of her own status, of her own position in the scheme of things, is devastatingly diminished. She becomes in her own eyes any or all of the following: (a) a sexually devalued person, (b) a powerless person, (c) a person who has been provoked without redress, (d) an unlovable person, and finally, (e) a person who is obligated to give unremittingly to others but who has no corresponding rights to receive from others or to act in her own best interests. These status assignments render intelligible the classic symptoms of incest survivors (e.g., chronic depression, abysmal self-esteem, rage, powerlessness), provide a sharp focus for therapeutic attack, and heuristically suggest numerous therapeutic interventions. Psychotherapy is here promoted as an accreditation ceremony in which

the central business is the alteration of the incest survivor's formulation of her own status in such a way that her eligibilities are increased, the emotional consequences of her degradation diminished, and her participation in the world in a way which is meaningful and rewarding for her is radically enhanced.

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Raymond M. Bergner, Ph.D. is an professor of clinical psychology at Illinois State University, Normal, IL, 61761.

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## BIOGRAPHICAL SKETCHES OF THE CONTRIBUTORS

**Raymond M. Bergner** received his Ph.D. in Clinical Psychology from the University of Colorado in 1973. He is currently an Professor of Psychology at Illinois State University and has a private psychotherapy practice in Bloomington, Illinois. His work in Descriptive Psychology has been concerned with its application to the conceptualization of psychopathological phenomena and to psychotherapy. He has been a member of the Editorial Board of *Advances in Descriptive Psychology* since its inception, and served with Keith Davis as co-editor of Volume 3. Dr. Bergner was the president of the Society for Descriptive Psychology in 1983-84.

**Laurie L. Bergner** received her Ph.D. in Clinical Psychology from the University of Colorado under the direction of Peter G. Ossorio. She is currently a clinical psychologist in private practice and organizational consulting in Normal, Illinois. She is also an adjunct professor at Illinois State University. Her organizational consulting specialty has been law enforcement agencies. She uses Descriptive Psychology concepts in both her clinical and consulting work.

**John R. Forward** is an Associate Professor of Psychology at the University of Colorado, Boulder, where he teaches and conducts research in small groups, human service organizations, and behavioral medicine. He received his B. A. from the University of Melbourne (Australia) and a Ph.D. in social psychology from the University of Michigan in 1967.

**Sonja Bunke Holt** is a Descriptive Psychologist in private practice in Arvada, Colorado. She is also on the staff of Information Access Systems working on the development of J-Space technology. She received her Ph.D. in Clinical Psychology from the University of Colorado, where she completed her dissertation under the direction of Peter G. Ossorio. Her primary interests are applications of Descriptive Psychology to psychotherapy, psychological assessment, child development, and parenting.

**H. Joel Jeffrey** received his Ph.D. in Computer Science in 1974 from the University of Colorado, where he divided his time between computer science and psychology (both clinical and Descriptive). He is an associate Professor of Computer Science at Northern Illinois University in DeKalb, Illinois. His interests are in the applications of Descriptive Psychology technology, artificial intelligence, software engineering, clinical psychology, and spirituality. He is editor of the *Descriptive Psychology Bulletin*, and a member of the editorial board of *Advances in Descriptive Psychology*, and served as president of the Society for Descriptive Psychology during 1985-86. Author address: Department of Computer Science, Northern Illinois University, DeKalb, Illinois 60115.

**Catherine Latham** received her Ph.D. in Clinical Psychology from the University of Colorado in 1984 under the direction of Peter G. Ossorio. She is currently a clinical psychologist in private practice in Ithaca, New York.

**James M. Orvik** is a Professor of psychology at the University of Alaska, Fairbanks, where he has taught and done research on a variety of cross-cultural issues. He received his Ph.D. in social-personality psychology from the University of Colorado in 1979, where he developed his initial interest in Descriptive Psychology. A sabbatical at Cambridge University in 1979 provided the opportunity to combine his interest in cross-cultural phenomena and Descriptive Psychology, resulting in the contribution to this volume.

**Peter G. Ossorio** is a Professor in the Department of Psychology, University of Colorado, Boulder. He has been active in the training and supervision both of clinical and non-clinical students. He is the founder of Descriptive Psychology as a systematic formulation, and the author of numerous monographs and technical reports. He is also the founder of the Linguistic Research Institute which has been engaged in research and consultation since the early 1960s. He received his Ph.D. from the University of California at Los Angeles in clinical psychology.

**Anthony O. Putman** is a Descriptive Psychologist who works primarily with organizations, systems, and communities. He is president of Descriptive Systems in Ann Arbor, Michigan, a firm which provides consulting services to a variety of clients interested in the marketing of their services and talents. He has also developed a number of expert systems and embodied them in software for use by clients. He is a well-known speaker and teacher in the field of human resource development and organizations. During 1982-83, he served as the Society for Descriptive Psychology's president, and he has served on the editorial board of *Advances* since its beginning.

**Corlis Roberta Sapin** is in private practice in Arvada, Colorado, where she specializes in family and adolescent problems and provides crisis intervention services under the auspices of the city. She received her B. Sc. from Northwestern University and her Ph.D. in Clinical Psychology from the University of Colorado, Boulder. She has been a member of the Society for Descriptive Psychology since its inception.

**Mary McDermott Shideler** is an independent scholar who for a number of years has been using Descriptive Psychology as a means of throwing new light on a number of classical problems in theology. She is a past president of the American Theological Society (Midwest Division) and of the Society for Descriptive Psychology, and the author of seven books and fifty-odd articles. Her most recent book, *Persons, Behavior, and the World*, is a survey of Descriptive Psychology. Her spirituality book is in preparation.

**H. Paul Zeiger** is a member of the technical staff at U S WEST, Advanced Technology. His current responsibilities include software prototyping and technology transfer. He has designed and built software to assist individuals in knowledge-intensive jobs. He received his PH.D. from the Massachusetts Institute of Technology in electrical engineering, and was on the faculty of Computer Science at the University of Colorado. There he met Peter G. Ossorio and studied Descriptive Psychology, in which he has maintained a lively interest for the last 15 years.



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