WORLDS AND WORLD RECONSTRUCTION

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ABSTRACT

People construct and maintain worlds that give them behavior potential, and routinely try to reconstruct those worlds in ways that give them more behavior potential. Problem-solving is a special case of world reconstruction, and there is a variety of ordinary activities which we may treat as vehicles for the reconstruction of a problematic world. The systematic use of two such activities—storytelling and dreaming—is illustrated in the context of psychotherapy. In addition, various theories about dreams are examined in light of the concept of world reconstruction.

The real world is what we see when we look around us. In much traditional thought, that world was the given. More recently, we hear such statements as "The world is the way we take it. It isn't given; we have to take it." This current of thought emphasizes that people are active rather than passive in relation to the world. However, this does not go far enough because it leaves the notion of "taking" either parochial or mysterious. Thus, we may go further and speak of the world not as "given" or as "taken", but

rather as "created". This does not imply a God-like status for persons, of course (see Ossorio, 1981b, pp. 12–13).

If people *create* worlds, what is the relationship of the individual worlds they create to the real world? In order to answer that question, we will review the concept of the real world and the concept of a person's world, and explore the relationship between them. After introducing the concept of world construction in this way, we will briefly discuss world maintenance, and then focus on the concept of world reconstruction.

WORLDS

The concept of the real world involves the following sorts of facts:

1. The real world is what we all live in and are a part of.
2. We find out about it by observation and thought.
3. No one could acquire all of the facts there are.
4. People acquire some of the facts there are by observation and thought.
5. People are sometimes mistaken in what they take to be the case.
6. That someone is mistaken is a state of affairs that can be discovered by observation and thought.
7. Some people are incapable of observing some facts which other people can, and do, observe (e.g., that the trombone is slightly flat or that the signal is red).
8. No one is guaranteed to be correct in what he takes to be the case. (See Ossorio, 1982c.)

From these facts it follows that the real world is not in principle the same as what a given person thinks it is or perceives it to be.

The concept of the real world is the concept of everything there is, whereas the concept of a person's world is the concept of everything there is for a given person. Each concept is the concept of "a totality of related objects and/or processes and/or events and/or states of affairs" (Ossorio, 1978, p. 18, Table 1, No. 1). In each case, it is the concept and comprehension of the totality that has logical priority,[1] and in that sense comes first, as contrasted with the various objects, processes, events, and states of affairs that we count as being included in that totality. We do not arrive at the concept of everything there is by virtue of having encountered, experienced, or even thought of all the particular things that come under this heading.

Both concepts are also "placeholder" concepts on the model of "Jack's misfortune" or "what's going on in the next room". Each holds a place for a range of possible facts (states of affairs). The real world, "the state of affairs which includes all other states of affairs" (Ossorio, 1978, p. 29),

has a place for all our personal worlds and much else besides. A person's world ordinarily has a place for other people who have their own worlds, and also has a place for a real world which includes both the person's own world and others' worlds.

Persons' worlds may be incomplete, distorted, or inaccurate relative to the real world. Persons' worlds are incomplete relative to the real world in that we are selective in what we respond to, and we discover new facts all the time. Persons' worlds are distorted or inaccurate relative to the real world in that we sometimes ignore, misperceive, or misconstrue what's there, and we may change our minds about it. From these facts it follows that the real world's being a certain way in no way compels us to see it or treat it as being that way. That it is not inevitable that we see the world a certain way is part of what gives force to talking about a person "constructing" a world. In constructing our worlds, we select among a range of possibilities for seeing and treating the real world, and the world does not compel us to choose one option over another.

For example, my friend may betray me, but I may not see it that way. I may see it and treat it as a test of our friendship, or as the product of unavoidable circumstances, or as a humorous escapade, or as a deserved punishment for some past transgression on my part, or in any one of a variety of other ways. *What* my friend produced the behavior as does not force me to treat it that way. To the extent that I successfully treat it as something else, I *make* my friend's behavior a test, an escapade, a punishment, etc., and construe a world in which our friendship has not been significantly violated. Likewise, I may see the behavior as a betrayal and treat it accordingly, but this is a matter of choice and sensitivity, not necessity.

The objects, processes, events, and states of affairs in the real world provide us not only with possibilities, but also with limitations on what we can and cannot do successfully. These limitations reflect reality constraints provided by our circumstances and our own characteristics.[2] Just as we are not compelled to treat the possibilities provided by the real world a certain way (e.g., I am not compelled to treat my friend's behavior as a betrayal or to see that it could be treated as something other than a betrayal), we are not compelled to recognize limitations on our behavior. We may, like Don Quixote, construct worlds in which the impossible is possible, and attempt to actualize the corresponding behavior potential.

In talking about the possibilities and limitations offered by a given person's world, we may speak of that person's "options" and "givens". The options are the person's behavioral possibilities, and the givens are those states of affairs that offer no real possibilities for alternatives (see Ossorio, 1982c, p. 148). We may compare the options and givens of a person's world with the possibilities and limitations of the real world.

For example, a person may not have certain real world possibilities as

options in his or her world. Suppose that a woman has found out early on in her life that having fun is not a possibility for her. In this case, she will construct a world in which there are no options for having fun. She will not see situations as opportunities for pleasure, but rather will treat them as something else, e.g., as opportunities to do her duty or to do necessary chores. (''Now I've got to get the cookies made, and once I get that out of the way, I've got to. . . .'') To the extent that she exploits the obligatory possibilities of situations and does not realize the pleasurable ones, she now creates for herself an exiguous and humdrum world.

Likewise, a person may reject certain real world limitations as givens in his or her world. In the face of death or taxes a man may insist ''By God, that's not going to happen to me'', and mobilize all his energy into creating a world in which these have no place. To the extent that he insists on this sort of world construction, he becomes more and more ''out of touch with the real world'' and ends up in a world by himself.

A person may also reject some generally accepted limitations of the real world and create a personal world that reveals new possibilities for himself and others. For example, at one time it was considered impossible for a person to run a four-minute mile. But once Roger Bannister achieved the four-minute mile, other people discovered that running a four-minute mile was an option for them as well.

In addition to not being compelled to see or treat the possibilities and limitations of the real world as possibilities and limitations of our worlds, we also are not compelled to deal with the real world at any particular level of generality or specificity. In formulating the holistic structure of our worlds, and in formulating the states of affairs that fit within that structure, we make decisions concerning the real world. Because the real world does not force us to make these decisions at any particular level of detail, we differ in the degree of specificity of our formulations of the world as a whole and in its parts and aspects.

In talking about the possibilities offered by a given person's world, we may speak of how differentiated that person's world is, and judge the degree of differentiation of that person's world against the standard of what we know as the real world. For example, one person may formulate a world reflective of a high degree of detailed and comprehensive knowl-edge and understanding of the real world, while another may formulate a less differentiated world. The former world will in general give its creator more behavior potential and call for the person to make decisions of greater complexity (though not necessarily of greater difficulty), while the latter will in general give its creator fewer possibilities but call for less complex decision-making.

To highlight the differences possible among persons in the differentiation of their worlds, we may use the example of being betrayed by a friend.

I could see the betrayal merely as something I don't like or as something bad, and treat it accordingly. I could see it not merely as something bad, but rather, specifically as a betrayal and treat it accordingly. I could see it not merely as a betrayal, but this particular betrayal and treat it accordingly. And I could see it as this particular betrayal by this particular person in these particular circumstances and treat it accordingly. And treating it accordingly would almost certainly be different in each of these cases.

In comparing the options and givens of a person's world to the possibilities and limitations of the real world, or in assessing the degree of differentiation of a person's world relative to the real world, we are using the concept of the real world in the ordinary sense in which it serves as a pragmatic guide to judgment and behavior. We are not claiming to have infallible access to the Truth about how the world is.

As an example of the use of the concept of the real world as a pragmatic guide to making judgments, consider the track coach who says of one of his young runners: "Johnny doesn't believe that he could ever run the 100-yard dash in 9.3 seconds, but he's wrong. And if he had a little more self-confidence, he could do it." In talking about what Johnny can do in the real world, the coach is simply exercising his competence to judge what is in fact the case, and his judgment guides his behavior as a coach. No claims of infallibility or transcendental knowledge are involved in making judgments of this sort.

The distinction between an individual's personal world and the real world is therefore not to be confused with the Kantian distinction between phenomena and noumena (Kant, 1961). We are not claiming to have a transcendental access to things-in-themselves which we then use as a template against which to measure a person's perceptions, beliefs, etc. Instead, the concept of the real world reflects our having standards of objectivity, completeness, accuracy, and relevance in regard to actualities and possibilities. We are using the concept in this way when we compare a person's world with the real world.

WORLD MAINTENANCE AND RECONSTRUCTION

Worlds are not once and forever things. Once formulated, the overall structure of a person's world and the states of affairs that make up that world have to be maintained or they may be lost. Thus, in general, a person alternates between maintaining his world as a whole and dealing with the particulars of his world.

When a person engages in behavior involving some particular part or aspect of his world, he is maintaining that part but simultaneously ignoring other parts and aspects of his world, including its overall structure. After

a period of time of focusing on some particular aspect of his world, a person needs to break from focusing and "mend his fences", i.e., to shift his attention to those aspects of his world he has been ignoring. Otherwise, a person begins to lose the parts and aspects of his world that he neglects with a corresponding loss of behavior potential.

By way of example, consider a working person who during working hours restricts herself to doing her job and acts (essentially) only on those reasons relevant to her work. She screens out the reasons she has as a wife, as a mother, as a skier, etc., and acts only on those reasons she has as a doctor, lawyer, or whatever. After some period of time of working, she will be ready to take a break and let herself be responsive to the larger context of her life which she has been neglecting. Ideally, she achieves an overall orientation to her world as a whole and puts her work in perspective before returning to it. She thereby maintains a world and a range of possibilities wider than the restricted set of possibilities she is acting on in her working world.

Notice that there is nothing motivational about the concept of a person maintaining a world. It is not that a person is motivated to construct and maintain a world; rather, a person just does or he is not human. The sensory deprivation experiments of Heron, Doane, and Scott (1956) underscore the notion of people as inherent world constructor/maintainers. Subjects deprived of sensory stimulation frequently begin to experience visual hallucinations. This may be seen as people doing what comes naturally, i.e., world-building and world-maintaining. In the absence of a normal, hence perceptible world, subjects experientially create a world of the kind in which behavior is possible. (In so doing, they go one step beyond the mime who elicits from his audience the imaginative creation of the world in which he is acting.)

A person not only constructs and maintains a world, but also can reconstruct that world in ways that give him or her more behavior potential. A person's world would be narrow indeed if he or she approached everything in the same way and treated everything the same way, never trying out new forms of behavior or adding new dimensions to his or her world. Such a person would be more like a machine than a human being, and we might appropriately describe him or her as "stuck in a rut". In fact, people frequently reformulate either their overall world or some part of their worlds. Such reformulation occurs in response to a person's acquisition of new concepts and new forms of behavior, in response to new experience, and in response to a person's assessment that his present world is problematic. The world is problematic for a person when that person's behavior potential is restricted unnecessarily, as judged by reference to some standard, or, colloquially, when the person is "worse off than he should be or needs to be". Under such circumstances, a person

will normally and naturally try for a reconstruction of the world such that it is no longer problematic.

Such reconstruction may occur within the existing framework of a person's world, as when a person tries to solve a practical, everyday problem. After solving such a problem, a person has more behavior potential than before, i.e., he no longer has an unnecessary restriction on his possibilities in that area of his life, but his world as a whole is basically unchanged.

World reconstruction may also involve a change in the structure of the person's world as a whole, e.g., a shift in the division of givens and options. Adolescence is frequently a time of reconstruction of this sort. For example, it is not uncommon to hear an indignant adolescent in effect insist ''Why *can't* I have everything I want?'' This appears to him or her to be a genuine option, and the adolescent fights against what he or she experiences as unnecessary restrictions. Only gradually does the adolescent conclude that a person can't have everything he wants in part because a lot of a person's wants are contradictory, and because different people's wants are contradictory, so that there's no way everybody can have everything they want. It usually takes some time before the adolescent reaches this conclusion and arrives at a more realistic, nonproblematic formulation of givens and options.

Not all instances of world reconstruction will qualify as problem-solving attempts. For example, a person's choice of a career is an event which may change a person's overall approach to things, so that the person puts his or her world together in a new and different way. But such reconstruction may be as much in response to learning new concepts and new social practices as in response to an assessment of unnecessary restriction.

There are a variety of ordinary activities which can serve as vehicles for the reconstruction of a problematic world. Such activities include realistic problem-solving, brainstorming, guided fantasy, daydreaming, dreaming, and others (see Ossorio, 1982c, p. 90). The activities vary in the degree to which reality constraints are operative in the activity.

When a person reconstructs his or her world via realistic problem-solving, that person works within some strong reality constraints both in formulating the problem and in formulating possible solutions. The person wants to be sure that the problem is identified correctly and that the solution doesn't involve anything unrealistic, impractical, or undoable. By contrast, when a person engages in brainstorming, he deliberately relaxes his critical thinking and verbalizes any ideas that come to his mind, regardless of whether the ideas seem irrelevant, unrealistic, or absurd. Only after the brainstorming session is over does a person evaluate whether the ideas are actual contributions toward a solution. Likewise in daydreaming, a person spontaneously relaxes the requirement that his ideas be realistic or down-to-earth, and portrays the world in such a way that

it is no longer problematic for him. During the daydream, the person does not deal with how to bring into actuality the envisioned nonproblematic state of affairs, but the daydream may nonetheless contain elements of a solution (cf. Ossorio, 1977, p. 258).

The more a person's reality constraints are relaxed, the more world reconstruction is possible. Thus, when a person faces a problem that is insoluble via ordinary problem-solving, he may be able to generate a solution via brainstorming, daydreaming, or dreaming. This is because many insoluble problems are created at least in part by having accepted something as a given that isn't necessarily a given, or by having accepted something as an option that isn't necessarily an option. As long as a person remains within his existing givens and options, he is ''stuck''. But once a person begins to experiment with new formulations of givens and options, a creative solution may emerge.

Dreaming is the activity in which a person's reality constraints are most relaxed, and correspondingly, the most extreme reformulation is, in principle, possible. Operating within minimal reality constraints, a person produces a dream ''top down'' (cf. Ossorio, 1982a, pp. 3–5), first coming up with an abstract idea or reformulation of the world and then depicting that idea by filling in some concrete details in a dream.[3] In depicting an idea in a dream, a person is relatively free of constraints regarding sequence of events, continuity of characters, consistency of place, and the like. Because of the minimal reality constraints operative while the person is filling in details, the dream may not appear to make much sense to a person upon awakening.

Accordingly, in order to understand a dream, it is necessary to ''drop the details, and see what pattern remains'' (Ossorio, 1979). Once the dreamer or dream interpreter sees the essential content of the dream, i.e., the world reconstruction the dreamer had in mind in producing the dream, the dreamer can then see if this reconstruction can be applied to his or her life situation. If the person applies the dream reconstruction to the practical details of his life, he thereby reintroduces reality constraints and may make the dream equivalent to practical problem-solving.

For example, imagine a young man, struggling with a vocational decision, having a dream with a series of scenes in which he repeatedly chooses self-fulfilling alternatives over alternatives which meet other people's expectations. Although the particular images and scenes of the dream vary, the pattern of making self-fulfilling choices is clear to the man when he reviews the dream. When he applies this pattern to his life, he realizes the dream reflects the way he is leaning in regard to his decision: ''I'm not going to medical school; I'm going to be a writer.'' His interpretation connects the dream to his real life, and brings the world reconstruction he accomplished in the dream down to a practical level.

Using dreams as a vehicle for problem-solving involves three steps: First, reformulating the problematic part of the world in a dream with relative freedom from reality constraints; on awakening, dropping the nonessential details of the dream and seeing what the essential reconstruction is; and finally, reintroducing reality constraints by seeing how the dream applies to the dreamer's life situation, and by evaluating whether the reconstruction produced in the dream is an acceptable solution to the dreamer's problem.

Anything a person can do in the course of realistic problem-solving makes sense and is possible in dreaming. For example, in the course of ordinary problem-solving, sometimes we generate problem statements rather than solutions. Sometimes prior to the statement of the problem, we bring into the picture relevant facts. The same holds for dreaming. Some dreams are better understood as problem-stating rather than problem-solving, while others fit more in the category of "thoughts". A dream where a person seems to be musing over ideas would fit the thought category. So would a dream in which a person seems to suggest "Here's a possibility", but is noncommittal enough about that possibility so that the dream does not portray that possibility as a solution to a problem. The case of a problem-solving dream may therefore be understood as a Paradigm Case (Ossorio, 1981a), and problem-stating dreams and "thought dreams" as transformations of the Paradigm Case. Presumably, differences among the three reflect how far the dreamer is from a solution at the outset.

While it is possible in dreams for a person to do all the things he or she can do when involved in realistic problem-solving, the guarantees as to whether a person can act on a solution generated in a dream, as opposed to one produced in realistic problem-solving, are very different. With realistic problem-solving, a person has a reasonable guarantee that any solution generated can be acted upon because of the reality constraints under which the solution is produced. But for activities like brainstorming, daydreaming, dreaming, etc., the more a person's reality constraints are relaxed, the less the guarantee a person has that he can act on the reformulation produced during the activity.

For example, there is no guarantee that a person can act on a reformulation produced in a dream. A woman rebuffed by her lover may dream he has a change of heart. If that were to happen it would solve her problem, but it is not a solution she can implement. In addition, there is no guarantee that the solution generated in a dream will be acceptable to the dreamer on awakening. A man who feels trapped by an unhappy marriage may dream of his wife beheaded, but awake, find such a solution unacceptable. While the relaxation of reality constraints maximizes the possibility of generating solutions to problems, it minimizes the guarantees that the so-

lutions will be real solutions. Thus, brainstorming, daydreaming, dreaming, etc. all require a special situation in which a person will have the opportunity to reintroduce reality constraints and evaluate whether the solution generated is realistic, practical, or acceptable.

Sometimes a person is unable to generate an acceptable solution to a problem. Even in dreaming, the activity in which his or her reality constraints are most relaxed, a person may not be able to reconstruct the world enough so that the limitation on his or her behavior potential is not there. A good example is a recurrent dream in which a person portrays the problematic part of his world but is unable to see his way clear to a solution, and keeps representing the problem over and over again.

If the limitation on behavior potential is of sufficient importance, the person may be left in an impossible position. Unable to reformulate the problem as one that has a solution, and unable to reformulate his world so that he does not have that problem, the person runs out of things he can try. At this point, the person may turn to a friend, a consultant, a counselor, a priest, etc., depending on the nature of the problem. Such an adviser, operating from an observer's position, will be better placed to see where the person is blocked and to help the person reformulate his world.

In the section that follows, two examples of systematic world reconstruction, accomplished with the help of a Descriptive psychotherapist, will be presented. While the examples of world reconstruction will be drawn from psychotherapy, the conceptualization of world construction and reconstruction presented above is not merely a conceptualization for use in doing therapy. The formulation of world construction and reconstruction holds in general, and therapeutic world reconstruction is simply a special case.

THERAPEUTIC WORLD RECONSTRUCTION

If a person turns to a Descriptive psychotherapist for help, the Descriptive therapist, operating in accordance with the choice principles for doing psychotherapy and status dynamic maxims developed by Peter G. Ossorio (1976, 1982c), looks to see what it is about a client's world formulation that is leaving the client in an impossible position. After identifying the problem, the therapist comes up with a reformulation of the client's world, a reformulation that opens up new possibilities and alternatives for the client.

One of the options of a Descriptive therapist is to give the client feedback in the form of ''You've been seeing and treating the world this way; try seeing and treating it *this* way instead.'' To the extent that the client can share the new way of seeing the therapist offers, it becomes potentially

real that the world might be that way. To the extent that the client acts on this reformulation, the world and his place in it are changed.

Mutual storytelling and dream interpretation are two techniques that are useful to psychotherapists for finding out how the client sees the world, and for offering a reformulation to the client. Both involve activities which people may use naturally in trying to reconstruct their worlds. Dreaming has already been discussed as the activity in which a person's reality constraints are most relaxed. By contrast, storytelling is subject to greater reality constraints because of the pressure to be coherent in a story. While the two examples of therapeutic world reconstruction presented below involve the use of stories and dreams, any of the reconstructive activities mentioned earlier, including brainstorming, guided fantasy, and daydreaming, may be helpful in psychotherapy.

Mutual Storytelling

Stories have been used for centuries to get people "not to be limited in the ways that they are, in how they see things, and how they live" (Ossorio, 1977, p. 132). For example, Aesop's fables have been used since the time of ancient Greece to get children not to make the mistakes they are making, and to keep them from going wrong in the ways people commonly go wrong. Likewise, the teaching stories of the Sufis, written between 800 and 1100 A.D., have been used for hundreds of years to free people from unnecessary restrictions and limitations (Shah, 1969). More recently, psychotherapists have been using storytelling as a therapeutic technique (e.g., Bergner, 1979; Gardner, 1971; Gordon, 1982).

One of the advantages of storytelling as a therapeutic technique is that the therapist can portray how the client is restricted without generating a lot of resistance. In fact, rather than defending against what the therapist is saying, "the client is drawn in because a story has a certain intrinsic interest, and he's actually working to understand it" (Ossorio, 1976, p. 214). In addition, the therapist can get the client to try out a new way of looking at things in a story without "laying it on the client" as *the* way. Having gotten across the concept by means of the story, the therapist then can get the person to act on it.

Richard Gardner, a psychoanalytic therapist, has developed the "Mutual Story-telling Technique" for use with children. According to Gardner (1971), a child's story is an "invaluable projection of unconscious processes" (p. 33). In using this technique, Gardner invites the child to participate in a "Make-Up-a-Story Television Program" and has the child tell a story into the microphone of a tape recorder. When the child has finished his or her story, Gardner in turn tells a story, using the same characters, setting, and initial situation as the child, but ending the story

so as to show a healthier resolution of the unconscious conflict portrayed in the child's story.

This technique is extremely useful for therapeutic world reconstruction. Rather than approaching the stories to learn about a child's "unconscious processes", a Descriptive therapist may look at the stories as revelatory of a child's view of the world, and his or her place in the world. A therapist can generally figure out from the child's stories what kinds of life dramas are salient for the child, and further, what restrictions on behavior potential the child has. In understanding the child's stories, the therapist "drops the details and looks for the pattern", just as in understanding dreams.

In responding to the child's stories, the therapist can help the child restructure his world by introducing new ways of relating to the world, by giving the child a sense of what it would be like to have a good place in the world, and so forth. Using the same characters, setting, and initial situation as in the child's story makes it relatively easy for a therapist to be where the child is. And since the new concept or possibility the therapist suggests to the child should be directly responsive to where the child is now, it is likely that the child will be able to act in accordance with the new possibilities that he or she has learned or come to take seriously. In each therapy hour, after the stories have been told, the therapist may use the remaining therapy time to try to see to it that the child is successful in acting on the new concept.

In order to illustrate how a therapist may help a child reconstruct his or her world via mutual storytelling, stories shared with a 9-½ year-old boy over eight months of therapy are presented in Table 1. Table 1 includes selected stories told by the boy, the themes of the stories, and the stories told by the therapist in response. The child's stories reflect the changes in his world and in his behavior potential that occurred during therapy.

The boy was initially referred for therapy because of "poor social adjustment and declining school performance". His fourth grade teacher reported that he had no friends and that he was absorbed in fantasy so much of the day at school that he was failing his schoolwork. As revealed by the child's first story, in which two astronauts die out in space, the boy could aptly be described as "spaced out" and in some danger of losing contact with reality.

Through therapy, however, the child gradually changed from being "nowhere" to being "fully one of us". In response to the view of the world presented by the therapist via stories and made real in the therapy hours, the child began to see and treat the world differently. By the end of therapy, he was no longer spaced out, had caught up on his schoolwork and passed fourth grade, was an active participant in a summer camp program, and had made several friends.

Table 1
World Reconstruction via Mutual Storytelling: Stories Shared with a 9½-year-old Boy

Date	Child's Story	Theme of Child's Story	Therapist's Story
12–9	Two astronauts are out in space, and their rocket ship goes out of control.	People are nowhere and out of contact and it's hopeless.	Two astronauts are out in space, and their rocket ship goes out of control.
	The astronauts are lost in space, and die out there when they run out of oxygen.		As the signals from the rocket ship get weaker and weaker, the people at the space center realize the astronauts are in trouble. They send out a rescue ship that arrives in time and brings the astronauts safely back to earth.
1–12	The people from Earth are at war with the people from a UFO planet. The Earth people have a weapon that can spit out a fluid more destructive than hot lava, and the UFO people have a Doomsday bomb that can destroy Earth. Both planets are destroyed.	People destroy each other and everything else, too.	The people from Earth are furious at the people from a UFO planet for the ways the UFO people have let them down. The Earth people are angry enough to wipe out the entire UFO planet, and they have the weapon to do it. But they decide to give the UFO people one final chance, and this time, they are able to make peace.
2–2	A king who is very, very active lives atop a castle on a very, very steep hill. The hill is so steep that the king has never been down it. But he devises a way: He has his archers shoot down arrows with wires, and he rides a cable car down.	Somebody who's isolated succeeds in making contact and gets no credit for it.	A king who is very, very active lives atop a castle on a very, very steep hill. The hill is so steep that the king has never been down it. But he devises a way: He has his archers shoot down arrows with wires, and he rides a cable car down.

(Continued)

Table 1 (Continued)

Date	Child's Story	Theme of Child's Story	Therapist's Story
	He spends six months seeing the world. When he's ready to go back up, he figures out that he can pole his way back up to the castle.		A man in the valley sees him come down and is so impressed by his ingenuity that he goes to meet him. They make friends and spend six months together, seeing the world. When the king is ready to go back up, he figures out that he can pole his way back up to the castle.
	When he gets back up though, everyone just wants to hear about the world, and no one cares about his cleverness in getting back up.		When he gets back up though, everyone just wants to hear about the world, and no one cares about his cleverness in getting back up. So he comes back down and shares his success with his friend.
3–2	There is a rhinoceros who loves to run on the plains. One day he sees a tour bus full of people. He goes to see them, but they are all petrified with fear and the bus driver quickly drives away. The rhinoceros tries to keep up, but while he is running, his head hits against the bus and he quits.	Somebody tries to make contact and people won't have it. He tries, and then he quits, and then he quits everything, until somebody fixes him.	There is a rhinoceros who loves to run on the plains. One day he sees a tour bus full of people. He goes to see them, but they are all petrified with fear and the bus driver quickly drives away. The rhinoceros tries to keep up, but while he is running, his head hits against the bus and he quits.

After this, he doesn't have anything more to do with people. Some scientists come, and he lets them do blood tests. He just stands there. He gets lazier and lazier until the scientists decide he must have brain damage. So they do an operation and then he can run again.

After this, he is so angry with people he doesn't have anything more to do with them. Some scientists come, and realize he is immobilized with anger. So they work with him, and he decides to give people another chance. He begins to run on the plains again.

3–23
There is a whale who lives to watch the seagulls. One day a seagull lands on his back, and the whale suddenly swims down deep in the ocean.

One person intrudes on another, and that creates conflict.
Ending the conflict creates more conflict so they just back away.

There is a whale who likes to watch the seagulls. One day a seagull lands on his back, and the whale suddenly swims down deep in the ocean.

The seagull is very angry, and bites the whale, and they get into a fight, with the seagull biting and the whale hitting.

When the whale surfaces, he says to the seagull, ''Don't just plop down on me that way. If you want to rest on me, hover in front of me for a moment first and ask me.''

They both decide to give up at the same time, and then they get into a fight about who can give up first. They realize this is silly so they just leave each other alone after that.

The seagull apologizes, and promises to ask next time. The seagull keeps his word, and the two become friends and enjoy many wonderful days together in the ocean.

3–30
A chimpanzee goes down to look at a tour bus. Instead of it being a tour bus, it's a zoo truck, and he is captured and put in the zoo. He doesn't like it at all at first, but he learns to clap his hands like an umpire, and people throw him popcorn. But the baboons in the zoo steal his popcorn, so he figures out that he will only clap when they are out of sight.

A person makes a tentative contact and gets roped in.
He learns to manage,
but it's not enough.
He finds another contact
where he can have what fits him.

A chimpanzee goes down to look at a tour bus. Instead of it being a tour bus, it's a zoo truck, and he is captured and put in the zoo. He doesn't like it at all at first, but he learns to clap his hands like an umpire, and people throw him popcorn. But the baboons in the zoo steal his popcorn, so he figures out that he will only clap when they are out of sight.

Table 1 (Continued)

Date	Child's Story	Theme of Child's Story	Therapist's Story
	But a problem arises in that he gets so he doesn't eat vegetarian food. So the zoo keepers work with him, and he becomes the only chimp in the world who gets two meals a day, one from the zoo keepers and one from the crowd.		But he resents having to put on an act, and wishes he could just be himself and do what comes naturally again. He decides to try this, and is surprised when it works out well. The zoo keepers make sure he has good food, and the people treat him with more respect and interest.
4–6	An Elk wants people to know his second name (an Indian name), but he has a hard time communicating. So he goes to a science center where there is a machine that fits on his head and prints out his words.	A person tries to make contact and can't do it on his own. So he finds help and makes an overture. People find it good, and he has the contact he wants.	An Elk wants people to know his second name (an Indian name), but he has a hard time communicating. So he goes to a science center where there is a machine that fits on his head and prints out his words.
	He sneaks in one night and puts the cap on, and the machine prints out his thoughts: "My real name is W_____ . How do I get this off? Thank goodness." When the scientists come the next morning they find his thoughts and search everywhere for him. When they find him, he becomes famous for revealing his Indian name.		He sneaks in one night and puts the cap on, but the machine is not working. He tries all night to get the machine to work, and is thoroughly frustrated by morning. He is so frustrated that when the scientists come to work in the morning, he blurts out his Indian name. He becomes famous for revealing his name.
4–27	There is an orange bird who idolizes the fictional orange bird in Walt Disney's movie. The real bird goes out to find the fictional bird and imitate him.	A real person admires a storybook hero and tries to be like him. The storybook hero knows that a real person has something he doesn't. So there's conflict, but they resolve it positively.	There is an orange bird who idolizes the fictional orange bird in Walt Disney's movie. The real bird goes out to find the fictional bird and imitate him.

But the fictional bird is very unhappy and is jealous of the real bird. The fictional bird wants revenge on the real bird, and blows orange smoke in many shapes at him. But he discovers that the real bird is invincible. In the end, the two birds become friends.

He meets the bird who plays the part of the fictional bird, and finds out that that bird is very unhappy. He feels trapped in the part, and is jealous of birds who get to be themselves. The bird who has to play the part decides to [Child interprets: "burn his scripts"] burn his scripts. He finds he can be himself with the real bird who came to find him, and the two become friends.

5-18 Three story sequence (abbreviated):

#1: about a family who takes turns putting each other in the closet at night.

People treat each other like furniture.

#1: about a boy who makes friends with the family next door and is invited over for dinner.

#2: about two boys who run away from home and catch a freight train and find food for themselves along the track.

Two people barely manage to make it together.

#2: about two boys who run away from home and catch a freight train and are helped out by some hoboes they meet on the train.

#3: about two boys who catch a passenger train. They get their courage up and talk to a policeman. When they don't get in trouble, they feel brave and meet all the passengers on the train.

It's safe and OK to make contact.

#3: Same story as the child's.

33

Table 1 (Continued)

Date	Child's Story	Theme of Child's Story	Therapist's Story
8–2	There is a tortoise who is really a wild cat on the inside. He can run farther than a cheeta, growl louder than a lion, and is bigger than a tiger. He finds the company of other tortoises boring, so he decides to go to the jungle. He gets captured by a zoo truck, however, and is put in with all the tortoises, where he is bored.	A person has more power and strength than he needs, so he goes where he can use them and they're appreciated.	There is a tortoise who is really a wild cat on the inside. He can run farther than a cheeta, growl louder than a lion, and is bigger than a tiger. He finds the company of other tortoises boring, so he decides to go to the jungle. He gets captured by a zoo truck, however, and is put in with all the tortoises, where he is bored.
	One day he sneaks away to the cat cage, and lives happily there until he is discovered. Then, he is taken to the circus, and becomes famous since he is such an unusual tortoise.		One day he notices another tortoise who seems to be unhappy, too. They talk, and each is shocked to find a fellow tortoise who is really a wild cat inside. Together, they sneak away to the cat cage, and live happily thre until they are discovered. Then, they go the the circus and become a famous duo.
8–15	There is a gorilla who is the most unpopular of all gorillas. The head gorilla is getting old, and a new leader needs to be chosen. The unpopular gorilla wants to be the leader, but everyone laughs at him. However, he goes out and kills a lion, and everyone sees that he can do great things, so they choose him as head.	A person is an outsider, but he has the strength and talents people value. He demonstrates that, and becomes an insider.	No story told.

Dream Interpretation

Like storytelling, dreaming and dream interpretation have been recognized for centuries as vehicles for world reconstruciton. For example, the New Testament records a dream of Peter's, in which Peter sees food that is not kosher, and hears a voice insisting that he should eat it (Acts 10.9). Peter interprets the dream as meaning that he should teach the gospel of Christ to Gentiles, rather than restricting his teaching to Jews only. This leads Peter to make a radical social and religious change in his world.

In the twentieth century, dream interpretation has been recognized as a valuable tool for the psychotherapist since Freud (1953) published *The Interpretation of Dreams*. Theorists have developed a number of approaches to interpreting dreams which may be used in psychotherapy, and we will review some of these approaches in the final section of this paper.

One of the advantages of using clients' dreams in psychotherapy is that the therapist can tap into the person's ongoing assessment of the problem. To the extent that a person is willing to share dreams and work with the therapist on them, the therapist has access to the person's changing formulations of the problem and to potential solutions as they are generated by the person. A second advantage of working with dreams is that the therapist has some practical assurance in working with the dream that he or she is working with something important and not will-o'-the-wisp, since the dream medium lends itself to fundamental sorts of problems. Moreover, working with dreams makes it easy for the therapist to be where the client is, since a correct dream interpretation captures the client's own thinking.

In introducing clients to the notion that working with dreams may be helpful in therapy, it is not necessary to discuss world construction and reconstruction. Speaking of dreams as vehicles for problem-stating and problem-solving is a simple heuristic way of talking that usually captures clients' attention and interest. If the client is not already a dream recaller, some suggestions on remembering dreams may also be in order (e.g., Faraday, 1972, Appendix A).

When the client brings his first dream to the therapist, and the therapist successfully "drops the details" and shares the dream pattern with the client, the client may be surprised both to see that the dream is meaningful, and to see the relation of the dream to his life. It is not uncommon for clients initially to treat their own dreams as if they were produced by someone or something else, e.g., by "the unconscious". It is important therapeutically that a person realize that he or she is the creator of the dream. Usually there is a small self-esteem boost when the person realizes "*I* came up with that. . . . How about that!"

In addition, a person needs to realize that as the dream's creator, he or she is in the best position to recognize when an interpretation is right.

In fact, the person's recognition of an interpretation as correct is relatively authoritative, since his recognition is the best single mark of the fact that that's what he produced the dream *as* (cf. ''the picture of Winston Churchill'' in Ossorio, 1980, chap. 4).

When a person accepts being the creator of his or her dreams, occasionally he or she asks the question ''How do I do it?'' The therapist needs to illustrate for the client what is wrong with the question, and can often do so by asking several corresponding questions, e.g., ''How do you add one and one and get two?'' ''If you have an idea, how would you put it in image form?''

More frequently the complaint ''Why can't *I* just see what my dreams mean?'' is heard. In response, reassuring the client that ''You *can* see, with the proper practice and experience'' may be in order. Dream interpretation is a skill, and like any skill, requires some practice and experience before a person is proficient at it. Part of the skill in dream interpretation involves dropping the right details. A dream interpreter is already responding to the pattern in dropping the details that he does, and it takes some practice before this comes naturally.

In addition, it may be helpful to point out that even when a person is skillful at dream interpretation, when it comes to seeing what his or her own dreams mean, the issue of givens and options enters in. The dream reconstruction was generated while the person's givens were relaxed. Awake, however, the person is again operating within his or her givens, and this may make it difficult to see the meaning of the dream. A person may get around this difficulty by taking an observer's view of his own dreams: ''Imagine a friend of yours in this situation told you this dream. What would you make of it?'' By shifting to an observer's position, the person may be better placed to see the meaning of his dreams.

In order to illustrate how a therapist may use dreams in helping a client reconstruct his or her world, selected dreams shared by a 24-year-old woman over six months of therapy are presented in Table 2. Notice that while Table 2 includes the dream pattern, i.e., the essential reconstruction accomplished in the dream, the application of the dream pattern to the practical details of the woman's life is not included. For reasons of confidentiality and space, this last step of dream interpretation is not included here, although it is routinely a part of therapy.

The woman's presenting problem was that in spite of having ''a good job and a good relation to a man'', she was unhappy and nervous. During the day she was ruminating over brutality she had suffered in the past, and at night, she was grinding her teeth and having recurring nightmares about being killed. After the nightmares of October 23 and 30 were reported, the therapist suggested to the client that she ''turn and face her killer'', similar to the Senoi dream policy of ''advance and attack in the

Table 2
World Reconstruction via Dream Interpretation:
Dreams Shared by a 24-year-old Woman

Date	Dream	Pattern
Childhood around age 5	I remember a recurrent dream about a young girl, dressed up like a woman, walking up to a house, never able to reach it.	A child who has to be an adult in order to be secure, and can't make it.
Early teens	I remember dreaming that I was trying to hold onto something to survive. I'm not sure what I was holding onto.	Someone whose hold on life is precarious, but tenacious, and who succeeds even though she doesn't know what she's doing.
10–23	My boss is shooting friends, family, etc., in the head. There is blood everywhere.	Someone or something is taking away everything I might have counted on. There's no one left on whom I can depend, and it's a bloody sort of realization, a terrifying reality.
10–23	A man is coming into my house to kill me. I struggle with him, and wake up afraid.	Life is a life-and-death struggle.
10–30	I am alone in the family room at my boyfriend's apartment, and I hear a woman screaming outside. My boyfriend's brother and his girlfriend do not hear her, and do not listen to my fears. I go to let a dog inside for protection. As I unfasten the dog's leash, I see the black shadow of a man, approaching me. I wake up afraid.	Someone is alone. Someone is vulnerable. You can't count on anyone. Maybe you can't count on anything in a world of men.
10–30	I am in a house with a lot of people, and my brother Mack is outside going crazy, trying to kill my sister Sharon. "They" take Mack away, but then I realize Sharon is crazy, too, out to kill everybody, but me first. I try to warn people, but no one listens.	Nothing makes sense. No one is safe from anybody. No one can help anyone.
11–13	I am on my way home, and a man is standing outside my apartment building. I want to get away from him, but as soon	Men are deadly. Men are not deadly.

(Continued)

Table 2 (Continued)

Date	Dream	Pattern
	as I get inside the building, there is another man, out to kill me. I get my key in the door, and feel the warmth of the man, approaching me from behind. He is going to kill me and I am struggling, but then he convinces me it isn't going to hurt. I try to help him shoot me, putting the gun up to my chest. I get very frustrated when the bullets won't go into my body.	
11–24	I am with my 6-year-old niece, but I leave her momentarily. Then I cannot find her. I hire a man to help me look for her. Then, I find Fred (her boyfriend), and he helps me look. At last we find her, frightened and upset. But then I wander off again.	People are not alone. People may help people. People may help people help people. Sometimes. Maybe.
12–3	I let Fred into my apartment via the apartment buzzer, but the man who comes in is not Fred. I scream for help, but no one helps me. The man finally lets go of me, and then people come to help me. I take them into my apartment, but the man has his suitcases there, acts as if he belongs there.	Who goes there: friend or foe?
12–9	There is a woman in the bathroom, trying to fix the toilet. I am holding shit, and the woman helps me dispose of it down the bathtub drain.	Woman are ok. They can do things to help each other. They don't have to put up with all the shit.
12–17	I am going out on a date, except every time I go to meet my date he says "Are you going to wear that?" I keep going back and changing, and we never go out.	People are different: How can they get along? How can they do thing together?
12–26	I am going to be kidnapped by two men and a woman. I try to tell my sister, but she won't take me seriously.	Who's on whose side? Who can work with whom? Who can help whom?

Table 2 (Continued)

Date	Dream	Pattern
12–26	I am on a roller coaster, holding on desperately because I am not strapped in. Later, I realize I am strapped in.	You can be safe even when you're not cozy.
1–7	My sister is having a birthday party, and my father fails to come.	There are some good things in life, but some people let you down.
1–7	I go with a man to find a girl who has been waiting a long time atop a mountain, and bring the girl back with me.	People help people. Some people you can count on.
1–7	I am helping another woman with a trapeze act, and we are sharing a costume. Later, we are waterskiing, but there is only one bikini bottom. I give it to the other woman, and stand bare-bottomed in the lake.	People not only help other people; sometimes they give things up for each other.
1–14	I am in bed with my friend's boyfriend, but he looks crazy and I'm afraid. In the bed next to me are a number of women. After I notice them, my sense of danger passes.	You don't have to be afraid of men if you're a woman.
1–14	A man is pouring gasoline over me, and is about to light a match. I run in circles in fear until all the gasoline has evaporated.	Men can be risky, but it's not fatal.
1–23	My brother, who is crazy in the dream, has raped my sister. I know I'm next, and run to the police for help. But the police do not take me seriously. Then I realize the cop is on my brother's side. I begin to stick a hat pin into the cop's head, and he does not defend himself. My brother sits and laughs. I wake up crying uncontrollably.	Even in a crazy world, I'm not helpless.
2–6	Fred has his arms around me, and his arms are gradually filling up with air (like a device for taking blood pressure), strangling me.	You have to get past appearances because the reality may be different.

(Continued)

Table 2 (Continued)

Date	Dream	Pattern
3 2	I am living at a house with my mother and sister, and I'm going out on a date. I end up at a cabin with my date where something strange is going on. tell my date I don't want any part of this, and he does not force me. Later, we're alone in a car and I "come on" to him, but he rejects me.	"Go with the flow . . "Strike while the iron is hot."
3–2	I have an egg in my hand. I know the contents are dead, but when I open the egg, there are two little birds who would have lived, along with one dead bird.	Don't hurry things, or you may kill the possibility.
4–30	I am learning how to ski, and Fred is watching TV at the foot of the mountain. He will not ski with me, but does come up the mountain to kill a small spider for me.	Someone is helpful, but you can't be close to him in the ways that really count.
4–30	I am trapped by an evil man. Whenever the evil man is not around, a good man tries to help me escape over a fence. I almost get over, but cannot quite make it. On the other side of the fence, people are making love. I have the feeling if I can just get the evil man's costume off, things will be ok. I get his shirt off, but it's not enough.	I could love him if only I could wipe out the evil I see in him.

Note: In accord with the "Ethical Principles of Psychologists", all identifying information in the preceding dreams has been disguised.

teeth of danger'' (Stewart, 1969, p. 163). As can be seen in the November 13 dream, she was able to do this, and the changes in her world, reflected in her dreams, began.

The dream sequence culminates in the dream of January 23, in which the woman portrays herself as competent even in a crazy world. After this, the dreams change qualitatively as she begins to wrestle with issues like how to make good judgments (''Now that I know it's possible to win at this game, how do I make the right moves?''). The pair of dreams from March 2 is noteworthy, in that the dreams reflect alternative policies for action. These dreams fit the category of thoughts discussed above, in which

a person suggests "Here's a possibility" and "Here's another possibility", but is noncommittal regarding which course of action to take.

As revealed in the dreams, by the end of therapy the woman's world had changed from being a crazy, brutal place to a place where safety and affection were possible. In addition, the woman's ruminations, bruxism, and nightmares had stopped, and her nervousness was diminishing as she learned to recognize and deal with provocations on her job and with her boyfriend.

IN REVIEW: DREAMING

The conceptualization of world reconstruction presented and illustrated above provides a comprehensive, systematic framework in which it is possible to make sense of a range of facts, including facts about dreaming. Within this framework, we have explained why we may come up with better solutions to our problems in our dreams that we do awake, why dreams do not appear to make much sense on awakening, why dreams need interpretation, and why we have recurrent dreams. We will now look at the relationship of some of the major psychological theories about dreaming to this conceptualization, and also address some methodological considerations.

Theories About Dreaming

Three of the major theorists who wrote about dreams—Freud, Adler, and Jung—have presented psychological theories that say in an abstract and universal way what problems there are to be solved by people. The dream theory of each is a statement in his own theoretical language that dreams are a way to solve *those* problems.[4] For example, according to Freud, the universal human problem is how to achieve instinctual gratification. Correspondingly, he sees dreams as providing hallucinatory gratification of repressed infantile wishes (Freud, 1953, p. 553). These infantile wishes are usually disguised in dreams on account of censorship and dream distortion, and the task of dream interpretation is to find the latent wish behind the manifest content of the dream.

Adler theorized that the universal problems to be solved by people are how to achieve power and superiority and how to maintain a life style. Correspondingly, he saw dreams as a way to achieve these things. Adler (1932) says explicitly:

> If, during the day, we are occupied with striving towards the goal of superiority, we must be occupied with the same problem at night. Everyone must dream as if he had a task to fulfill in dreaming, as if he had to strive towards superiority also in his dreams. The dream must be a product of the style of life, and it must help to build up and enforce the style of life. (p. 98)

Adler felt that dreams enforce the life style first by arousing feelings that give a person the emotional power to keep acting in accordance with his

style of life, and second, by appearing to provide solutions to problems, solutions which are in accordance with the life style but which may violate common sense. He felt that we fool ourselves in dreams, and use dreams to justify and maintain our striving towards superiority, rather than learning to adapt to reality and to cooperate. He concluded that "the fact that dreams are designed to fool us accounts for the fact that they are so rarely understood" (Adler, 1932, p. 107). Given Adler's disparagement of dreams, it is ironical that he is frequently described without qualification as having a problem-solving view of dreams (e.g., Webb & Cartwright, 1978, p. 244).

Jung believed that the universal human problem was how to achieve psychic integration and wholeness, and he saw dreams as the expression of an unconscious psychic process towards wholeness. Jung (1969b) writes:

> Since everything living strives for wholeness, the inevitable one-sidedness of our conscious life is continually being corrected and compensated by the universal human being in us. . . . The essential content of the dream action is a sort of finely attuned compensation of the one-sidedness, errors, deviations, or other shortcomings of the conscious attitude. (pp. 292, 295).

If the conscious attitude is too maladaptive, the "merely compensating function of the unconscious becomes a guiding, prospective function" (Jung, 1969a, p. 257), and the unconscious may lead a person towards wholeness through his dreams. Jung acknowledges that he is not "in possession of a generally satisfying theory or explanation of this complicated phenomenon. We still know far too little about the nature of the unconscious psyche for that" (1969b, p. 297).

Although a thorough critique of these three theories will not be presented here, we may note that each theory preempts the kinds of problems a person may be recognized as solving. If a person takes a particular theory seriously and remains within the givens of the theory in interpreting dreams, he will have an unnecessary limitation on his behavior potential because only a narrow range of dream interpretations will fit within the constraints of the theory. In contrast, a person operating within the conceptualization of world reconstruction presented above will not have this problem. Because of the comprehensiveness of the conceptualization, someone using it may recognize when a person is wrestling in his dreams with limitations such as being unsatisfied, powerless, one-sided or fragmented, but also when a person is wrestling with a range of other human problems.

In practice, of course, therapists who work with clients' dreams may not remain within the constraints of their theories in interpreting dreams. This was true for Freud: Freud does not interpret a single dream in *The Interpretation of Dreams* in terms of a repressed infantile wish (see Jones, 1970, pp. 11–12). For therapists who practice outside of their theoretical

constraints, the formulation offered here may provide a rationale for the kinds of interpretations they in fact give.

In contrast to Freud, Adler, and Jung, Hadfield is a theorist whose work on dreams is not formulated within any general psychological theory. He is included here because he is one of the first, and most pragmatic, of modern theorists who take a problem-solving approach to dreams. Hadfield (1954) states that "the function of dreams is that by means of reproducing the unsolved experiences of life, they work towards a solution of these problems" (p. 65).

While Hadfield writes many things about dreams that make sense, there are several problems with his theory. First, his theory is arbitrary and ad hoc, and not grounded in any more general conceptual framework. Second, Hadfield tends to omit persons from his theory, and writes his entire book as if dreams themselves are a kind of agent. In one section (pp. 111–112) he cautions against such "looseness of language", and yet does not come up with a satisfactory alternative. He suggests that "in dreams the rejected side of our problem makes its voice heard" (p. 111), and that a dream "is the voice of the discarded self" (p. 112), and then concludes the section by saying (loosely) that "the dream acts as a corrective to our hasty judgments and often induces us to reverse them" (p. 112).

Finally, Hadfield's formulation involves the use of magical terms in his explanation of how dream solve problems. For example, he states that "the dream solves [our problems] subconsciously more effectively than we can by conscious reasoning. How this comes about we do not know; we can only ascribe it to subconscious processes of which we know little" (pp. 114–115). Again, he recognizes the inadequacy of this way of talking, but is unable to provide an alternative.

In contrast to Hadfield's theory, the conceptualization of world reconstruction presented above does not involve an ad hoc assertion that dreams solve problems, but rather provides a systematic framework in which it is possible to understand why dreams may be useful for problem-solving. It is not subject to the problem of "the ghost outside the [dream] machine" (cf. Ossorio, 1978, pp. 184–186), but rather includes persons within the conceptualization. Finally, the explanations developed within the conceptualization are systematic and mundane, and do not involve any mysterious or occult processes.

Ego psychologists such as Erikson (1954), Jones (1962), and French and Fromm (1964) have also offered problem-solving views of dreams. For example, French and Fromm see the dream as an attempt of the ego to solve a "focal conflict" of the dreamer. This focal conflict has to do with a current problem in the dreamer's interpersonal relationships, which relates to earlier infantile conflicts. The ego substitutes a succession of more manageable problems for the original problem in a series of dreams, in an attempt to find a solution to the current problem. The pattern of sub-

stitutions employed by the ego in the dreams is believed to resemble a similar pattern of successive attempts in the dreamer's past to find solutions to earlier developmental conflicts.

Following the discovery of the physiological relationship between REM sleep and dreaming, theorists such as Ullman (1962), Jones (1970), and Greenberg, Pillard and Pearlman (1972), attempted to integrate ego psychology concepts with physiological concepts, and proposed theories regarding the "adaptive" functions of dreams. For example, Greenberg et al. hypothesized that the function of REM sleep is to assimilate anxiety aroused by stressful situations so that subsequent waking behavior will be more adaptive. They hypothesize that "when an individual meets a situation that is stressful for him, the stressfulness is due to the arousal of memories of prior difficulties with similar situations" (Greenberg et al., 1972, p. 260). REM sleep serves to integrate current stressful experiences with similar experiences from the past, thus enabling the person to use his characteristic defenses for that particular set of memories to deal with the current situation. They have reported several experimental studies using "presleep stress" in support of their theory (Greenberg et al., 1972; Grieser, Greenberg, & Harrison, 1972).

Both the theory of French and Fromm, and the theory of Greenberg and Pearlman restrict the kinds of problems that a person may be recognized as solving in dreams. On these views, only emotional problems or prior problems can be addressed by dreams. In addition, the theories leave much unspecified concerning *who* does the problem-solving in dreams: Is it the ego? Is it REM sleep? These theories also fail to explain adequately how the dream integrates past and present experiences in solving problems.

We will conclude our review of theories by looking at the range of possibilities about dreaming that Aristotle explored. In his essay, *On Divination in Sleep,* Aristotle (1931) recognizes the value of dreams for early diagnosis of medical problems. He notes that when people are awake, they are usually too active to notice slight symptoms of impending illness, but in the stillness of sleep, people are more likely to notice signs of disease. He writes that "even scientific physicians tell us that one should pay diligent attention to dreams", since the "beginnings [of disease] must be more evident in sleeping than in waking moments" (463a).

Aristotle also noted that dreams may predispose a person to certain actions. Just as we may dream about some behavior we engaged in during the day, we may engage in behavior that we dreamt about the night before.

> The movements set up first in sleep should also prove to be the starting-points of actions to be performed in the daytime, since the recurrence by day of thought of these actions also has had its way paved for it in the images before the mind at night. (463a)

Finally, Aristotle wrote about the possibility of precognitive dreams, which he explained by a theory of transmission of movements through the ether.

Examining these ideas in light of the conceptualization presented here, we may categorize dreams that are diagnostic of physical illness under the heading of problem-stating dreams, in which a person is seeking to make explicit and explain some slight interference or limitation in normal functioning. Dreams that predispose a person to a certain action come under the heading of problem-solving dreams, in which a person has decided how to treat a given situation.

The possibility of precognitive dreams may also be understood in light of the conceptualization. Since dreaming is a state in which a person's reality constraints are most relaxed, it is possible while dreaming for a person to be receptive to certain kinds of influence or information about the world, information that does not fit within his or her ordinary reality constraints. The conceptualization therefore allows for the possibility of genuinely precognitive dreams, rather than dreams that are just a self-diagnosis of a medical problem or a self-fulfilling prophecy of what a person has decided to do.

Although this review has not exhausted the areas of interest regarding dreams or the related literature, we have shown the relationship of various dream theories to the conceptualization of world reconstruction. As can be seen, none of these theories comes close to providing the scope or explanatory power regarding facts and possible facts about dreams that the present conceptualization does.

Methodological Considerations

The formulation of dreams presented above is sufficiently different from traditional formulations so that some familiar ways of thinking and talking may create difficulties for the reader. For example, one way of thinking that may be problematic involves the notion that of course one has to distinguish among theories of dream interpretation, dream formation, and dream function.

By way of background, we may note that Freud originally introduced these categories. In *The Interpretation of Dreams,* Freud (1953) devotes separate chapters to setting forth a method of interpreting dreams, to stating principles regarding the formation of dreams, and to speculating regarding "the psychology of the dream-processes", including their function. Jones (1970) reiterates Freud's distinction between dream interpretation and dream function, and attempts to modify Freud's theory about the function of dreaming in light of contemporary knowledge about the physiology of sleep.

The distinction between dream function and dream interpretation corresponds to the difference between asking "Why do people dream?" and

asking "How do I tell what dreams mean (or what this dream means)?" In order to bring to light some of the issues involved in raising "Why do people dream (at all)?" as a separate question, we may examine a parallel question, i.e., "Why do people drink wine (at all)?" Within a psychological framework, the appropriate response would be "It's one of the things that people do. What's the mystery that needs explaining?" Furthermore, we could point out that, as with all behavior, the function of drinking wine depends on the context, so that a given case of drinking wine might serve any one of a number of functions. For example, it might serve religious functions, inebriative functions, business functions, medicinal functions, social functions, assuasive functions, digestive functions, soporific functions, bacchanalian functions, and on and on. Note that if we are treating wine drinking *as* wine drinking, there is no categorical difference between what its function is and what it means (the "interpretation" of the behavior).

If we introduce a nonpsychological framework, however, we may create a necessity for the distinction between function and meaning. For example, one biochemical function of wine-drinking is to depress the central nervous system, and this "function" will, in most cases, be different from the psychological significance of the behavior (although of course a person who knows about biochemistry may drink wine for the sake of depressing his or her central nervous system).

Similarly with dreams, we may take a reductive approach to the study of dreams, and introduce a nonpsychological framework in which dreaming needs explaining. For example, we may introduce a biological framework, and say that "A dream serves to alert the organism in preparation for mammalian fight or flight patterns." We may introduce a physiological framework, and say that "A dream serves to reorganize firing patterns in the central nervous system." And so forth. In these cases, nonpsychological "functions" contrast with the meaning of a dream.

Both Freud and Jones wanted to understand dreams within a biological framework. It is evident in their writings that they assumed that the psychology of persons was derivative of the biology of Homo sapiens. In the case of Freud, the influence of Darwinian thought on Freudian theory is well known. With regard to Jones, a brief quote will illustrate his biological bias: "If dreaming serves purposes of its own, they are purposes which have issued from and based themselves upon pre-existent neurophysiological phenomena" (Jones, 1970, p. 42). The distinction between dream function and dream interpretation used by Freud and Jones was necessitated by their presuppositions.

In Descriptive Psychology, there is no *a priori* assumption that the psychology of persons is a derivative of the biology of Homo sapiens. In fact, Ossorio (1982b) makes a clear distinction between the psychological con-

cept of person and the biological concept of Homo sapiens. Persons, their behavior, and in this case, their dreams, are understood in a fundamental behavioral framework which is not a derivative of any other framework. Thus, the stipulation of a fundamental distinction between the function and interpretation of dreams is not particularly useful here, and the distinctions implied by these terms are codified in other ways (e.g., first person vs. third person description).

Likewise, talking about dream formation was useful for Freud's purposes, but it is not particularly useful for ours. In the context of psychoanalytic theory, where all sorts of subterranean processes are already postulated, one has to discuss what sort of subterranean processes are involved in producing dreams, in addition to discussing the dream itself (i.e., the "manifest" dream). But since the explanations of dreaming given in the present formulation do not involve any occult processes, there is no necessity and little use for Freud's distinction between the processes of dream formation and the dream itself.

For the person who insists upon using the categories of dream formation, dream interpretation, and dream function with respect to this formulation, in spite of their minimal utility, we may note the following:

1. The notion of producing a dream "top down" may be categorized as a concept of dream formation. (In this respect, the production of dreams is no different from the production of behaviors [see Ossorio, 1982a, pp. 3–5])
2. The notion of "dropping the details" may be categorized as a model for interpretation.
3. The notion of world maintenance and world reconstruction may be placed under the heading of function. The formulation has the virtue that function, formation, and interpretation connect directly and systematically to each other.

Another familiar way of talking that may create difficulties for the reader is talking about a "mere clinical demonstration" as opposed to a "rigorous laboratory experiment". Since clinical demonstrations are considered inferior to experimental demonstrations, the reader may be wondering "Aren't you going to present the *research* on dreams as problem-solving?" As Cartwright points out after a thorough review of the research literature, the "hypothesis that dreams are rehearsals or trial solutions to current problems has received no direct test despite the common support for this belief from many writers based on their clinical experience" (Webb & Cartwright, 1978, p. 244).

There are a number of well-known studies which looked at the effect of presleep stimulation on dream content. For example, Witkin and Lewis

(1967) showed films of childbirth and of a male initiation rite to subjects prior to sleep, and then studied subsequent dreams as representations of these waking experiences. Breger, Hunter, and Lane (1971) looked at what they took to be the effects of real life stressors (major surgery and group therapy) on dream content. Cartwright (1974a) instructed subjects to think about changing a personal characteristic (e.g., shyness, laziness) which she had previously identified as being of concern to them, and looked at their subsequent dreams. She notes that a major problem faced by researchers using presleep stimuli to study dream content is that "subjects typically ignore the experimenters' wishes once asleep, and continue to' dream their own dreams" (Webb & Cartwright, 1978, p. 237).

There are also studies of the effect of an interval of REM sleep on subsequent waking behavior. The studies of Greenberg and Pearlman cited above fit this category. In one study, Greenberg et al. (1972) showed subjects a film of an autopsy, and found that REM-deprived subjects were more anxious during a second viewing of the film than subjects who had normal sleep or subjects who were awakened in non-REM sleep. Cartwright (1974b) used the Thematic Apperception Test in one of her studies, and found that subjects allowed to sleep for a period of time told endings to stories that were more unsatisfactory for the hero of their stories than did subjects who did not sleep. (Notice that these sorts of studies do not involve an examination of the dream itself.)

While the effects of presleep stimuli on dream content and the effects of REM sleep on subsequent waking behavior are interesting, studies examining these effects cannot be considered to be investigations of the notion that dreams may be attempts at problem-solving. In fact, there seem to be only two studies that would qualify as attempts to demonstrate this idea. Dement (1972), after presenting a delightful collection of anecdotal evidence regarding the problem-solving potential of dreams, also presents a series of three experiments he conducted using undergraduates in his classes as subjects. The problems involved were puzzles similar to anagrams, and Dement developed a scoring system to judge to what extent the subjects' dreams were related to the puzzles. Even though solutions were reported in only seven out of 1,148 dreams, and even though Dement recognized the methodological shortcomings of his experiment, he concluded that the experiment gave "a valid indication of the possibility, albeit rarely evidenced, of problem solving during sleep" (Dement, 1972, p. 100).

Davé (1979) presents a study involving 24 subjects who were "at an impasse in the course of working on an academic, vocational, avocational, or personal problem or project" (p. 295). Half of his subjects received a "rational-cognitive treatment" to help them resolve their impasse, while the other half received a "hypnotic dream treatment" in which dreams were induced using hypnosis. Only one subject in the rational-cognitive

treatment group overcame his impasse, compared to nine subjects in the hypnotic dream group. Davé concludes that the role of dreaming in solving problems has "received initial and encouraging experimental support while awaiting more exacting confirmation" (p. 302).

With due respect to Dement and Davé, it may be helpful to have a set of criteria for doing further experiments to demonstrate the problem-solving possibilities of dreams. For a rigorous experimental demonstration of a dream's problem-solving possibilities, the following criteria are suggested.

1. The problem set by the experimenter has to constitute a real, personally meaningful problem for the subject.
2. Along with being personally meaningful, the problem has to be salient and operative, so that it will not be preempted by other, more serious, personal problems.
3. The experimenter needs to be able to specify for each subject what the problem is for a given dream. Most experimental designs would require that the problem be the same for all subjects.
4. The individual dreams have to be analyzed in some principled way in order to establish that the dreams qualify as an effort to solve the specific problem, and perhaps to what extent this is the case.

Until we have more research as responsive to these criteria as the Davé study, and until our methodology is sophisticated enough to fit the phenomena, clinical examples are the most rigorous evidence that dreams are routinely interpretable as tentative world reconstructions.

A third way of talking that may create difficulties for the reader has to do with the idea that psychological formulations are necesarily theories, and the truth of these theories needs to be demonstrated by research. This thesis is itself apparently a theory which is unsupported by research. A reader who is unfamiliar with Descriptive Psychology might well be wondering, "Are you suggesting that we accept your theory about dreams as God's Truth, even in the absence of experiments to *prove* it?" In fact, the formulation presented here is not a theory about dreams at all, and we have made no claims regarding the truth or universality of the formulation. We will review and clarify what we have done.

In the beginning of the paper, we introduced a set of concepts, including the concepts of a person's world, a person's behavioral possibilities (behavior potential), the real world, world construction, world maintenance, and world reconstruction. We explored some of the conceptual connections between these concepts, and illustrated their use.

After presenting this primary conceptual formulation, we had three possible options: (a) to continue to articulate concepts in greater detail, (b) to introduce a theory, or (c) to introduce a model (see Ossorio, in

press). As Ossorio points out, a model involves a claim that there is a point in talking a certain way and acting accordingly, usually in a given context or for certain purposes, without any associated claim of truth or universality.

We chose the third option, and the model we introduced had to do with considering activities such as brainstorming, daydreaming, or dreaming as examples of world reconstruction. We used the term "problem-solving" as a generic term for all these forms of world reconstruction, and it was in this broader sense that we considered daydreams or dreams as problem-solving efforts. Notice that this is not a theory, and it is not a statement that these activities are in fact problem-solving. Rather, it is a claim that for certain purposes, e.g. psychotherapy, there is a point in talking that way.

We then demonstrated the usefulness of this model in the context of psychotherapy. This is not the only context in which the model has utility, however. It might be used, for example, in understanding the lack of physical and mental disease among the Senoi, a Malayan tribe which includes dream interpretation as an integral part of daily life (Stewart, 1969). It might be used in understanding why a variety of scientific breakthroughs have occurred in dreams (Dement, 1972). It might be used to understand the age-old adage "sleep on it before you decide." And on and on.

In conclusion, we may note that the model presented here provides a systematic basis for understanding and approaching dreams as problem-solving. Moreover, the procedure described for interpreting dreams has a reality check, namely in the application to a person's real life. We therefore have a sensitive empirical basis for finding out in a given case whether or not it is helpful to approach a dream as problem-solving. If it is not, no harm has been done by approaching it provisionally that way. (Note that one interpreter's inability to formulate a given dream in such a way that its problem-solving status is clear does not constitute definitive evidence that that dream is not in fact a problem-solving effort, any more than a given experimenter's failure to demonstrate a given relation experimentally in a given context is definitive evidence that it is not there.)

Using the model presented here helps us to uncover the problem-solving potential which dreams have, so that we do not have an unnecessary restriction on our understanding and behavior potential with respect to dreams. In effect, the present paper provides a problem-solving formulation, as opposed to a God's Truth formulation, of what a dream is.

SUMMARY

Rather than being "given" or "taken", worlds are "created", "maintained", and "reconstructed" by people. People construct and maintain

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SUMMARY

Rather than being "given" or "taken", worlds are "created", "maintained", and "reconstructed" by people. People construct and maintain

worlds that give them behavior potential, and routinely try to reconstruct those worlds in ways that give them more potential. Problem-solving is a special case of world reconstruction, and there is a variety of ordinary activities which we may treat as vehicles for the reconstruction of a problematic world.

The primary conceptualization of world construction and reconstruction having been presented, and the model of treating activities like dreaming as world reconstructive having been discussed, the use of the conceptualization and model was demonstrated in three particular areas: first, in helping children reconstruct their worlds via mutual storytelling; second, in helping people reconstruct their worlds via dreaming and dream interpretation; and finally, in throwing light on various facts and theories about dreams.

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NOTES

1. What is involved here is primarily a logical priority which it is plausible to suppose is near-universally also a temporal priority, though there is seldom occasion to make a point of it and often good reason not to make a point of it. The logical priority reflects the fact that the reason the parts are there at all is that they are put there as implementations of the whole, and presumably, were they not available the whole would be implemented in other ways (Ossorio, personal communication, December 17, 1983).

2. When we say that "the limitations of the real world reflect reality constraints", we are using the concept of reality as "a boundary condition on our possible behaviors" (Ossorio, 1978, p. 35). Rather than talking about a person's behavioral possibilities by reference to the objects, processes, etc. in the real world which provide persons with possibilities for behavior and constraints on behavior, we are using the concept of reality to talk directly about the possibilities and limitations. The concept of reality is a way of talking "explicitly about the constraints on possible behaviors, rather than talking about objects which provide the constraints" (Ossorio, 1977, p. 220).

3. See note 1, above.

4. Both Freud and Jung also allowed for the possibility of dreams which were the result of traumatic experiences such as war. Jung (1969a) called such dreams "pure reaction dreams", and felt that these dreams were "essentially only a reproduction of the trauma" (p. 261). Freud (1955) saw such dreams as an exception to his wish-fulfillment theory. He writes:

If we are not to be shaken in our belief in the wish-fulfilling tenor of dreams by the dreams of traumatic neurotics, we still have one resource open to us: we may argue that the function of dreaming, like so much else, is upset in this condition and diverted from its purposes. (p. 13)

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