

If you don't like my book, write your own. If you don't think you can write a novel, that ought to tell you something. If you think you can, do. No excuses. If you still don't like my novel, find a book you do like. Life is too short to be miserable. If you do like my novels, I commend your good taste.

—Rita Mae Brown, *Southern Discomfort*

NATURALISTIC INQUIRY

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Constructed Realities

I fell asleep, and while sleeping, I dreamed that I was a butterfly. But when I awoke, I was uncertain whether I was a man dreaming that I was a butterfly, or whether I was a butterfly dreaming that I was a man, dreaming that I was a butterfly.

(Old Chinese Paradox)

Cognition is the most socially-conditioned activity of man, and knowledge is the paramount social creation.

(Fleck, 1979)

Struggles with the concept of reality are as old as humankind. Literature, poetry, plays, epic ballads, all have offered explanations for the great questions: Who am I? What am I doing here? What is the purpose of life? And, what is real? Their putative answers are the subject of the world's great religions, the greatest of the world's philosophical and moral thought, and most rock 'n' roll music. Their expressions can be found at any point in life. They exist embedded in everyday life, in the rash of self-help books that proliferated in the 1960s and 1970s, in serious disciplinary considerations ranging from psychology to sociology to quantum mechanics, and, finally, in newer constructions of formal philosophy or philosophy of science.

REALITY FOR THE PERSON ON THE STREET

The everyday consciousness of reality and its chameleonlike quality pervade politics, the media, and literature. A story is told about Jocko Conlan, a National League umpire, who, when trying to define criteria for calling a given pitch a ball or strike, finally declared, "They ain't nothin' til I calls 'em." Conlan's blatant construction of baseball reality may be an overstatement, especially now that we have entered the era of the instant replay, but it characterizes well a phenomenon

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that is not new. Consider, for instance, Tom Wicker's April 5, 1981, editorial on Alexander Haig shortly after the Reagan assassination attempt: "High White House officials, in their present circumstances, have little choice but to *put the best possible face on Secretary of State Haig's performance* the day President Reagan was shot" (emphasis added). Having been confronted with Haig's remarkable "performance," which was clearly unexplainable in terms of any of the rules that might be invoked under such dire circumstances, White House officials found themselves forced to engage in "face-making," face-saving, or, more succinctly, in the creation or construction of a palatable reality into which Haig might fit.

And Haig himself was not immune to the construction of quaint realities. Upon his resignation, *Newsweek* magazine speculated as to why he had seemingly not succeeded in the job he was hired to do:

Early on, Alexander Haig's persistent verbification of nouns, expropriation of compound military-bureaucratic voguisms and caveating of almost everything back-burnered the rest of his style. Such obfuscatory phrase-turns as "posthostage-return-attitude" or "nuance-al differences" and the still elusive "epistemologicallywise" eyebrow raised U.S. and allied officials alike who could not figure out what the Secretary was elocuting. Pundits mercilessly characterized Haigspeak as "haigledygook" and "Haigravation." Informationed Haigally that a question could not be answered "the way you contexted it," Sen. John Glenn of Ohio gamely comebacked, "Will you burden-share?" And even the normally support-providing Wall Street Journal bluntly derided, "What language is the Secretary speaking?" ("Why Haig Quit," 1982, p. 24)

It would appear that the construction of realities must depend on some form of consensual language. Unable to agree on what that might be, the press and most everyone else gave up trying to understand reality as Haig constructed it. *Sic transit gloria* foreign policy à la Haig.

One does not have to be drawn into the malapropisms and neologisms of Haig, however, to appreciate the experience of constructed realities. In the same week—the week of October 19, 1981—both *Time* and *Newsweek* magazines reviewed Diana Trilling's book on the Jean Harris-Herman Tarnower tragedy. Consider, for the moment, the very different perspectives on the same book evinced by the reviewers. Jean Strouse (1981, p. 101), writing for *Newsweek*, condemns Trilling's treatment of Mrs. Harris:

Trilling has no use for objectivity. She announces that she first conceived this book "in a spirit of partisanship," of "unqualified sym-

pathy" for Mrs. Harris, but later changed her mind. She here proceeds to try the headmistress all over again (isn't that double jeopardy?) in a special inquiry of her own—it might be called trial by innuendo—and she indulges in a little armchair psychoanalysis on the side. . . . Was [Trilling] in too great a hurry to get this book out before her competitors? Is she reaching for the mass market with her chatty tone, . . . histrionics . . . rhetorical flourishes and attempts to sound "with it"?

R. Z. Sheppard (1981, p. 101), writing for *Time*, on the other hand, found the book quite admirable in several respects:

Diana Trilling is a redoubtable essayist whose clear thinking and case-hardened prose have cut through much of the intellectual and political lard of the past 40 years.

The betting was that Trilling, 76, would turn out the most thoughtful account, though not the fastest or most marketable. One hesitates to deliver a verdict before all the evidence is in, but it is unlikely that Trilling's treatment of Tarnower's death and Harris' conviction will be bettered.

In the best sense of the term, this set of reviews represents what Schwartz and Ogilvy (1979) would call a move from the objective to the perspective. Neither Trilling's book nor either of the reviewers makes claims to objectivity; they represent perspectives, or what would be called "multiple realities." And none of them either purports to or seeks to represent the reality as constructed by Mrs. Jean Harris (which none of us will probably ever know or have access to).

Even George Will, the noted and widely read conservative columnist, is not above dealing with constructed realities, although he does not title them as such. In a July 24, 1983, editorial on former Secretary of State Henry Kissinger's alleged deviousness, Will treats the issue of where Kissinger made mistakes in assessing public opinion:

Kissinger's liberal critics are mistaken about the world; his conservative critics are mistaken about political realities. . . .

Critics on the left and right join in charging that pessimism or cynicism or some other un-American trait caused him to distrust the American public, and hence to pursue defeatist policies with devious methods. Actually, he trusted too much in the public's readiness to maintain the sinews of national strength amidst the atmospherics of detente.

If he was naive it was not, as conservative critics charge, about the Soviet system. Rather, it was about public opinion, the subtlety of which he overestimated. *A flaw in his detente policy was misplaced*

confidence in the constancy of a public condemned to live with ambiguities. (p. 5A; emphasis added)

For Will, the central concern is whether Henry Kissinger constructed a world view that served him well or ill, and, in Will's opinion, Kissinger misconstrued the reality of public opinion.

Other examples of daily trafficking with notions of reality are voluminous. As with bridge or Parcheesi, once the rules of the game are understood, one can look for examples of one's own, and find them at every turn without venturing further than daily newspapers or weekly news magazines. The game is sufficiently easy to play. The everyday examples abound.

But examples exist in more rarified circles also. Efforts to come to grips with reality can be found, for instance, in the plethora of self-help books that has emerged. These books are sometimes referred to as "self-administered psychology." But in the sense that they mirror quite accurately the concerns and problems people see themselves facing, they are excellent exemplars of the stride toward alternative lifestyles and, at some deeper level, are reflective of the emergent paradigm in action. One such book, by Stewart Emery (1978), is particularly helpful because it confronts the issues of reality directly:

Our individual personal reality—the way we think life is and the part we are to play in it—is *self-created*. *We put together our own personal reality*. It is made up of our interpretation of our perceptions of the way things are and what has happened to us. We make some basic decisions about life when we are being born, and we add to the script and embellish it during our childhood. We end up with a view of ourselves and the world that is usually highly inaccurate, because our perceptions of the world at an early age are not accurate. . . . Out of that we put together an environment that is a perfect reflection of our view of the world.

We write our script by the time we are about seven years old. Then we treat the world as if it were the back lot at Universal Studios. We pick out our sets and our props. We go to Wardrobe, which may be Sears or Macy's or Saks Fifth Avenue and choose our costumes. We select a location and begin filming the story of our life as we see it, starring US. *We literally create a reality that reflects our view of the world and who we are in relation to it.* (p. 39; emphasis added).

While Emery speaks most clearly of the problem of self-created, or constructed, realities, others in this genre are equally forceful, if only by indirection. Shere Hite's *The Hite Report* (1976) and *The Hite*

Report on Male Sexuality (1981), both widely read when they first appeared, are equally interesting examples of constructed realities. In Hite's books, the realities happen to be primarily those of women (in the first instance) and men (in the latter) responding to questionnaires asking for self-revelation concerning attitudes and practices of individual sexuality. Nevertheless, reading even snippets of responses lends a sense to the variety of experiences and constructions placed upon such intimate human contact.

An equally fascinating example is the recent "discovery" of the "G spot" (G for Gräfenberg, the purported discoverer of such a spot, supposedly an area of erectile tissue responsible for profound orgasms in women). Whether or not such a "spot" exists is open to question, although a recent book has emerged that argues for it forcefully (Ladas, Whipple, & Perry, 1982). What is interesting for present purposes is the *series* of realities that surround the existence of the G spot. On the one hand, there are unexplained phenomena regarding human (and especially female) sexual experience. Apparently, the G spot "explains" those previously unexplainable phenomena reasonably well. On the other hand, one wonders, in the face of hundreds of years of autopsies on human bodies—especially those of the twentieth century, which have become increasingly meticulous with the addition of more sophisticated machinery for looking at the interior of cells—why no one ever "saw" this particular "spot," or why there is conspicuous absence of mention of such curious tissue in centuries of writings and drawings of portions of the dissected human anatomy. Finally, one has to conclude, with an amused interviewee in *Time* magazine: "It's less interesting whether the Gräfenberg spot is there than that people want to search for it" (September 13, 1982).

The popular literature on Eastern religions and mysticism also provides dozens of examples of reality concerns. Readers of the now extensively reviewed (and often well-received) Carlos Castañeda (1974, 1977) books on his training by the mysterious Yaqui Indian, Don Juan, provide the reader with extensive "reality disjunctions" on virtually every page. Are we to believe that Castañeda has invented his stories, in response perhaps to some subconscious understanding of the relative new Western need to be connected once again to mystery and power? Are we to believe that Don Juan is a real person, imbued with powers sufficient to enable Castañeda to become disembodied, to fly, to "see" things that no ordinary man has seen? Are we to believe that Don Juan is a real Indian with understandings of hallucinogens native to the North American deserts, which he has used to induce the dream and waking states in Castañeda that he reflected in his writings? What *are*

we to believe about these writings? One person's reality will undoubtedly be another's mystical allegory, and still another's hogwash. The realities that we are able to construct out of the writings of Castañeda undoubtedly reflect strongly the belief structure that we bring to those same writings. Those with belief structures that admit to the existence of things unseen and unknown will undoubtedly form strong attachments to the rings of "truth" there, while those who believe in nothing unseen or unknown will dismiss the tales of power as either drug-induced hallucination or creative hyperbole. It depends, as Schwartz and Ogilvy would point out, on "perspectival" creation of reality.

In an interview conducted by Sunno Bhikko (1975), Achaan Chaa, an Eastern mystic, is equally enigmatic on the nature of reality:

Student: Are defilements such as greed or anger merely illusory, or are they real?

/Chaa/: They are both. The defilements we call lust or greed or delusion—these are just an outward name, appearance. Just as we can call a bowl large, small, pretty, or whatever. This is not reality. It is the concept we create from craving. (p. 124)

This is simply another way in which reality is "constructed," in this instance by an Eastern mystic and guru. There are, of course, multiple ways in which "reality" may be constructed, and there are multiple rationales for so doing. We will return to that point later in this chapter. For the moment, it will be helpful to continue considering ways in which problems with traditional constructs of reality have plagued writers and researchers.

"REALITY" IN THE DISCIPLINES

Another group that has grappled with reality and its meaning are those persons in academic disciplines who have examined method and its implications for knowing what we believe we know. Conspicuous among the disciplines most directly involved have been the several social behavioral sciences. David Bakan, professor of psychology at York University in Ontario and past president of one division of the American Psychological Association, in an article based on a presidential division address, argued that it was high time for psychology to "kick the science habit" (Bakan, 1972). In defense of his argument, he cited the fundamental conflict of the experimentalists versus the empiricists from the 1920s and 1930s, which essentially ignored two concrete facts in the history of scientific research: first, that experimen-

talism is but one form of empiricism, and, second, that empiricism—or reliance on observation or experience—has been responsible for most of the scientific advances to date. In general, to give the devil his due,

the marriage between psychology and natural science brought a critical attitude to the study of psychological phenomena, and this was an important step forward. *But the attempt to transfer other features of the natural sciences also had negative effects.* Principally, this alliance: 1) deflected psychology away from its primary subject matter—thinking, feeling, and willing; and 2) perpetuated an unwillingness to recognize the special quality of psychological phenomena that [he calls] *reflexivity*. (Bakan, 1972, p. 86-88; first emphasis added; second, in original)

But, Bakan goes on, traditional science, as it has come down to us from the natural sciences, has largely failed the enterprise of psychology: "Behaviorism's ideal of prediction and control not only fails on scientific grounds but makes the psychologist appear monstrous and contemptuous" (p. 88). But "psychology now has an opportunity to free itself from the natural-science model, *to pursue intrinsically relevant goals*" (p. 86; emphasis added), because "an authentic psychology must also concern itself with *reflexivity*: the effect of thinking, feeling and willing . . . on [true psychological processes such as thought and emotion] themselves" (p. 88). In short, Bakan's cry for psychology to eschew traditional or conventional science for a more relevant or empirical science (based, as he notes, on discovery rather than prediction and control) is a cry to focus on those things that make men and women human, the cognitive and creative processes. This focus would include the cognizing and creation that revolves about constructions of reality.

Sociology was also affected; the "paradigmatic crisis" of the early 1920s, from which sprang the "interpretive" sociologies (Pope, 1982),

[stood] opposed to the tenets of the old positivism. None of the symbolic interactionists and ethnomethodologists believe that social science should aim to produce lawlike sets of propositions, but believe instead that social science should provide a deeper understanding of individuals, their perceptions, and *the meanings they attach to social life* (Reynolds, 1980/1981; emphasis added).

One such way of dealing with meanings attached to social life was the epistemological position described as "constructive alternativism" by George Kelly, a personal construct psychology that attempts to "do justice to the internal world of the person" (Pope, 1982). This

theoretical and methodological approach "fall[s] within the 'verstehen' approach, the central spirit of which is coming to an understanding of the view of the world held by those people involved in a situation rather than adopting a 'stranger' perspective or ascribing structural function to external aspects (stimuli) of the environment" (Pope, 1982, p. 3). Kelly (1955) himself claimed that it was "presumption to assume that a person's constructions of reality were convergent with reality [sic] and suggested that "the open question for man is not whether reality exists or not but what he can make of it." Events or situations are theoretically open to as many constructions as there are persons engaged in them, or as many reconstructions by a single individual as imagination allows. Kelly's emphasis, as a therapeutic psychologist, was upon individual construction of individual realities, and upon the structure of the construct systems that individuals evolve for themselves, in order that meaning might be imposed on individual experiences (Pope, 1982; Kelly, 1969a, 1969b).

Schutz (1967) likewise found reality an artifact difficult to explain unless rooted in the meanings that are constructed and attached to everyday life by individuals. This phenomenological perspective, a strain of interpretive sociology, tries "to study social behavior by interpreting its subjective meaning as found in the intentions of individuals. The aim, then, is to interpret the actions of individuals in the social world and the ways in which individuals give meaning to social phenomena" (Schutz, 1967, p. 11).

Educationists, too, have not been without struggles with reality. Stake (1977), in an early *Evaluation News* guest editorial entitled "Some Alternative Presumptions," took on "truth" (and therefore reality) for the evaluation community. In doing program evaluation, he commented,

there is too great a temptation to suppose that truth is to be found in words and to suppose that intuitions are only poor facsimiles of truth. In practical matters, what is in fact true is that which is understood. . . . In any circumstance the truth might be but a single truth—but evaluators are certain not to find it. What they can find are multiple truths, multiple understandings, some contradictory to others. Evaluators should seek to resolve the contradictions and misunderstandings but *should expect that they will have to portray the multiple realities they find*" (p. 19; emphasis added).

Nor have the neo-Marxists in education remained free of the quarrel surrounding questions of what is real. They, perhaps more than any others, save the naturalists and ethnomethodologists, have concerns,

not, as one would suspect, over whether or not social reality is a constructed set of meanings (which they freely grant), but over *whose* construction ought legitimately to prevail. Michael Young (1971, p. 2), for instance, suggests that "sociologists should treat as problematic the dominant legitimizing categories of educators and should view them as 'constructed realities' which are realized in particular institutional contexts" (Reynolds, 1980/1981, p. 81), because

existing categories that for parents, teachers, children and many researchers distinguish home from school, learning from play, academic from non-academic and able or bright from dull and stupid must be conceived as socially constructed, with some in a position to impose their constructions or meanings on others.

Barton and Walker (1978, p. 274) buttress this emergent educational sociology by stressing that it views

man [sic] as an active participant in the creation and construction of social reality. . . . The nature of school knowledge, the organization of the school, the ideologies of teachers, indeed any educational issue, all become relative—and the central task for the sociology of education becomes to reveal *what constitutes reality for the participants in a given situation, to explain how those participants came to view reality in this way.* (emphasis added).

It is with constructs of reality that we are mainly concerned, but it is of more than passing interest that neo-Marxists engaged in criticism of naturalistic or ethnomethodological approaches have come down firmly in the camp of the positivists, arguing that "naturalism . . . does not appear to be concerned with the validation and objectification of the knowledge that is produced. . . . In the focus of its work, the naturalistic perspective is concerned mostly with the 'micro' world of the school and within-school interaction, neglecting to focus on the possible material determination of this phenomenological world. Naturalism accords to the social scientist the role of passive reporter of events and member accounts rather than interpreter of the world that Marxist analysis wishes the intellectual to adopt" (Reynolds, 1980/1981, p. 87).

The Marxist critique is partly legitimate, in that focus on educational issues rarely links those issues to wider socioeconomic analysis in any meaningful fashion. Nevertheless, non-Marxists will argue, and equally legitimately, that dialectic materialism is simply another social (or economic) construct in the world of ideas, and only one of many

that might be used in successful criticism of the educational enterprise. Marxists or non-Marxists have equal difficulty realizing that the business of schooling—what it is about, what it should be doing, who should be engaged in it—is itself a construction from culture to culture (and perhaps from community to community).

Jon Magoon (1977), presumably not a neo-Marxist, has commented extensively on what he calls "constructivist research," by which he means "a refocusing of educational research on another part of the schooling phenomena and consequently taking an approach to it that is called ethnographics; that is, an extensive descriptive and interpretive effort at explaining the complexity" (p. 652). Magoon has extensively documented the fact that constructivist modes have been utilized, although largely ignored, over the past fifty years, in sociology, in psychology, in education, and in philosophy. The time is now, he argues, for us to recognize such approaches as legitimate ones, and "that a significant part of the context of behavior that educational researchers observe is a structure produced by the constructions of the observed subject" (p. 655). His comprehensive listing of studies with constructivist perspectives in educational research demonstrates that researchers are utilizing such approaches and that they may be useful for needs educationists have, but fail to meet. The more traditional norm, a focus on "predictions about precise individual behavior," has blinded us to the fact that "pattern explanations are equally legitimate and useful and may be a better scientific goal approximation for many purposes" (p. 688).

Still another commentary available on the problem of creating (and maintaining) reality comes in the very powerful case study on ward attendants' perspectives in a state hospital originally published by Bogdan, Taylor, DeGrandpre, and Haynes (1974), and re-presented in Bogdan and Taylor's *Introduction to Qualitative Research Methods* (1975). The realities of ward attendants, the realities of the ward for Bogdan and Taylor, who were nonparticipant observers for nearly a year, and the perspectives of administrators of the hospital (for the severely and profoundly retarded and others) demonstrate that reality is indeed a construction. To Bogdan and Taylor, the sheer number of relatives employed at the state institution make the town "a company town"; to the ward attendants, "money . . . is the only reason" people were working there. To hospital administrators, not enough money from the state and too few trained employees left them living at the administrative, fiscal, and managerial edge, and they were clearly upset that several sociologists should be permitted to watch daily events on the wards. The seemingly endless filth ("You get used to it. . . . You

don't smell it anymore," says the ward attendant), the incessant large and small cruelties, the process of consuming food turned into a savage, hurried, and brutal survival strategy, all suggest that reality as experienced by ward attendants is not reality as experienced by residents is not reality as experienced by sociologists and special educators interested in discovering the nature of programs at a state hospital.

Bogdan and Taylor (1975, pp. 10-11) explain:

We have seen vivid scenes and behavior such as rocking and head-banging by residents interpreted in markedly disparate fashion. One attendant explained self-mutilation and head-banging as a direct result of severe mental retardation, while another claimed that a resident may bang his head against the wall as a response to sheer boredom and lack of programming. Similarly, one staff person remarked sadly, "These patients could really be helped if there were a program for them," while another praised the institution for its program: "I know I have the best recreation program in the country. We do everything for these kids." The staff's views of residents further exemplify the gross differences in perceptions. . . .

Truth then emerges not as one objective view but rather as the composite picture of how people think about the institution and each other. Truth comprises the perspectives of administrators, line-level staff, professional workers, outsiders, volunteers, maintenance staff, residents and family.

Bogdan and Taylor have drawn upon this body of case study material in order to demonstrate the uses of qualitative methods for achieving *verstehen*, but in the process have demonstrated profoundly that social reality is a construction based upon the actor's frame of reference within the setting. Each views the state hospital as a rather different arena, meeting needs as much (or more) for those who work there as those who are incarcerated.

Weston La Barre, a cultural anthropologist, provides another disciplinary viewpoint on the construction of reality from a social scientist's point of view. His particular *bête noir* was the damage done to the concept of culture as proposed by quantitatively oriented social scientists, but the point is equally applicable when any disciplinarian takes elements of culture and context out of their natural setting:

Counting does have its uses in the social sciences. But in anthropology cultures are molar complexes, with reticulated meanings—that informants can tell us about best. Numbers here can only operate with etically fragmented shards assembled from maimed wholes. The less trivial

and the more complex the data, the less legitimately available is the quantitative method. Besides, relevant quantifying can only operate on the basis of prior insight. Statistical voyagers from atoll to atoll would be mere camp followers of a masterly Malinowskian insight. The cultural statistician, curiously, cares little for insights into functioning wholes but seems principally enamored by his method. "Have method, will travel"—and from guru to guru as these kaleidoscopically change. "Empirical sociology" is already a mere branch of statistics, which is the main subject. However, we repeat, social science statistics are often useful in proving what we already know. Or think we know.

It may be impossible to show the numbers-minded why their manipulations are so unsatisfactory in the social sciences. Their statistical operations may be mathematically impeccable, and equations marvelously "sophisticated" (read, complex), but they have missed the boat. I have in mind here Whiting's elegant Rube Goldberg contraption for explaining circumcision—in such rainy *kwashiorkor*-afflicted regions as, say, the *locus classicus* deserts of the pastoral-Semitic Near East, with polygyny thrown in free. In my view, the Semites have already explained the real motive for circumcision in their abundant documents, though it depends on only a single constantly reiterated and deeply imbricated symbol, the immortal snake. If etically defined research later discovers that the wives of circumcised men have a lower incidence of cervical cancer, that is very interesting, and a triumph of etic science for us. But it is not the late-Old Stone Age motive for circumcision.

What is wrong with the quantifier is not only his locus of meaning but also his unexamined semantic predicament. Who cares about seventy percent truths anyway? This simply means that the numerical baskets are thirty percent full of irrelevant noncomparables. Some qualitatively undiscerned cobblestones have somehow gotten in with the apples and oranges. The supposed entities turn out to have been slippery words after all. They have evidently been dealing with something else, perhaps only round things. In the early days of anthropology, assuming that a field worker is manufactured through mere attendance at classes, Boas used to ask a single question of students returning from the field: "Did you find your Indians?" The question to be asked of the quantifying social scientist is, "Have you found your entities?" Are verbally defined data enough? Are words entities? (La Barre, 1980, p. 15)

Yes, Virginia, even statistics can only result in yet another constructed reality.

THE PHILOSOPHER'S VIEWPOINT

The point to the foregoing discussion is that however limited the examples (and there could be hundreds more), researchers in a variety

of disciplines in the social sciences have been and are grappling with social constructivist approaches, wherein the contribution of each individual in the context to the creation of a reality is recognized. These individual realities often overlap one another, simply because many of them are an effort to deal with the same putative phenomenon, but they differ in the meanings that are attached to the phenomenon and in the sense making in which each actor engages in order to keep his or her world whole and seamless.

Yet the person on the street and social scientists are not the only persons who have come to grips with the question of reality. There are always the philosophers, before us and among us now. At some fundamental level, they have introduced arguments asserting that "reality" might exist at any one of four levels, which we will conveniently label objective reality, perceived reality, constructed reality, and created reality for the purpose of discussing them as ontological positions.

(1) *Objective reality.* This stance has also been called naive realism, or hypothetical realism. It asserts that there is a tangible reality, and experience with it can result in knowing it fully. Physical, temporal, and social reality all exist, and with sufficient time and reasonably good principles of investigation, inquiry can converge on those realities even though individual studies may be only approximations. Realism, the view that "the world of which we have knowledge exists independently of our knowledge of it," has, according to Skagestad (1981, pp. 77-78), explanatory power with respect to two "puzzling facts":

One is the fact of error elimination, or, on the phenomenal level, the fact of exchanging one belief for another. There would be no point in changing beliefs only to go on changing beliefs indefinitely. This activity of changing one's beliefs can be rendered rational only as an attempt to reach a belief which will not thereafter need to be changed.

With that argument, Skagestad argues (after Peirce) that what one is, or ought to be, doing in changing beliefs is approximating "reality" (which nevertheless may remain unknown) more closely, or moving toward more perfect understanding of the reality that exists outside of ourselves and independent of the knower. The second argument advanced is

the drift toward consensus in science; that is, the fact that independent investigators, starting from different assumptions and different

observations, tend ultimately to arrive at the same conclusion. This fact . . . is explained by the hypothesis that their different inquiries are directed toward one and the same reality. (pp. 87-88)

Skagestad himself has pointed out that these arguments for a singular reality are not without loopholes. Stability of a belief does not increase its probable validity. After all, false beliefs may "persist for ages." And occasionally, the independence of investigators may itself be suspect, or the investigators may be products of a culture that impels them to certain beliefs that follow facts.

Nevertheless, realism, and therefore reality, must be taken seriously, according to Skagestad. This particular ontological position adopts the stance that individual inquiries may be only approximations, but, sooner or later, convergence will occur. Hence the cry, "More research is needed." The whole, for naive realists, is the sum of the parts.

(2) *Perceived reality.* The second ontological position asserts that there is a reality, but one cannot know it fully. It can be appreciated only from particular vantage points, which some prefer to call *perceptions*. A perception (a la the blind men and the elephant) is a partial, incomplete view of something that is nevertheless real, and capable of different interpretation when seen from different viewpoints. It is partial and incomplete only because each perception yields experience of only a limited number of *parts* of the whole (the tail, the trunk, the leg, and so on).

The major differences between the position of the naive realists and the perceived realists is that the former believe and hope that reality may at some point be known to all. With a sufficient body of research into the physical, social, and temporal, reality should rise out of the mists that enshroud it and become known. The perceptual realists believe that no one person—or, indeed, a group of many persons—can know all of reality at any point in time. Reality for any individual—or group or even a discipline—is at best only a partial picture of the whole, and will continue to remain so. But both the naive (or hypothetical) realists and the perceptual realists adopt the ontological position that there *is* a reality out there, a "real" reality, if you will; the differences lie between what the two groups believe is knowable about that reality.

(3) *Constructed reality.* Those who see reality as a construction in the minds of individuals asserts that it is dubious whether there is a reality. If there is, we can never know it. Furthermore, no amount of inquiry can produce convergence on it. There is, in this ontological

position, always an infinite number of constructions that might be made and hence there are multiple realities. Any given construction may not be (and almost certainly is not) in a one-to-one relation to (or isomorphic with) other constructions of the same (by definition only) entity. The definition is implied by the use of some common referent term, which is nevertheless understood (or constructed) differently by different individuals (or constructors). Some examples of constructions that are given the same definition might be the following: Harvard University; the Bronx Zoo; "Ma" Bell; handicapped children; educational research; social science; good manners; a controlled experiment; the Manhattan atomic bomb project; tort; Bobby Knight, the Indiana University basketball coach; communism; the Battle of the Bulge; welfare mothers; nursing homes; alternative lifestyles; God; urban blight; juvenile delinquency; a Camperdown elm tree; the Moonies; realpolitik, as practiced by Henry Kissinger; Watergate; the Vietnam era; the middle ages; or trickle-down economics. Each of these examples means (calls to mind, suggests, elicits a response, signifies) something quite different to different individuals, although they may agree on some formal definition that constitutes a partial description of the entity.

None of those things exists in a form other than those constructed by the persons who "recognize" the term (that is, who have encountered it at least once before in some form). Nor is any of those things "really" the sum or aggregate of the individual constructions. Each is undoubtedly incomplete or erroneous to some degree. Of course, constructed realities (or constructions) are often related to, and equally often inseparable from, tangible entities. No one would argue, for instance, that Bobby Knight did not exist, or that the Battle of the Bulge never happened (although there are people who have argued, for instance, that the Holocaust never happened, but was merely a political construction to arouse worldwide sympathy for the Jews). Events, persons, objects are indeed tangible entities. The meanings and wholeness derived from or ascribed to these tangible phenomena in order to make sense of them, organize them, or reorganize a belief system, however, are *constructed realities*.

Under this ontological position, the constructed realities ought to match the tangible entities as closely as possible, not, however, in order to create a derivative or reconstructed single reality (or fulfill the criterion of objectivity), but rather to represent the multiple constructions of individuals (or fulfill the criterion of fairness).

If one were to look for a theory of truth that conformed to this particular ontological position, it would have to be a consensus theory,

which asserts that observation sentences (and any correct application of general observation terms or descriptions) are those that are reinforced as such by the consensus of the community. More than mere consensus is required, however; there are external constraints that limit what can be agreed upon. Nevertheless, in general, group agreement determines truth (Hesse, 1980, p. 145).²

(4) *Created reality*. The fourth and final ontological position is that there is no reality at all. Reality is best understood as a standing wave function that is not *realized* (note the term) until some observer "pops the qwiff" (Wolf, 1981), "qwiff" being a quantum wave function. Until it is "popped," the quantum wave function (or *probable reality*) remains simply probabilistic.

Wolf's discussion of the problem of Schrödinger's cat is helpful in understanding created realities. He introduces his example with the following paragraphs:

What do we mean when we speak of "reality"? We usually mean the world that we sense. The world out there is made up of things that we can see, hear, taste, smell and touch—real, solid, substantial objects of our everyday existence. We take it for granted that these things would exist in their same sensible form even if we were not there to observe them.

Our observations simply verify an already existing reality.

Yet, that isn't what quantum mechanics seems to be telling us. It appears to indicate a drastic departure from what we could call our classical mechanical heritage. Certainly this is the position of what later came to be known as the Copenhagen position or the Bohr Complementarity Principle, there is no reality until that reality is perceived. Our perceptions of reality will, consequently, appear somewhat contradictory, dualistic, and paradoxical. The instantaneous experience of the reality of Now will not appear paradoxical at all. It is only when we observers attempt to construct a history of our perceptions that reality becomes paradoxical (Wolf, 1981, p. 127).

Schrödinger's cat, named after Erwin Schrödinger, a physicist who first posed the problem of activating several realities at once, has several elements contained in the "story." The elements of the example include the following:

- (1) A closed steel case containing one radioactive atom. The atom has a half-life of one hour, that is, in a large sample of such atoms half of them would remain after the passage of one hour while the other

- half would have decayed. Thus, after one hour, the probability of finding the atom still in the case is .5.
- (2) A photocell sensitive to emitted radiation. If the atom decays the resulting radiation trips the photocell, which in turn releases a deadly gas.
 - (3) A live cat is introduced into this cage at the same time that precisely one atom of radioactive element has been released in it. Question: At the end of an hour, what will we find on opening the case, a live cat or a dead cat?

Wolf points out that according to quantum mechanics, *you* control the fate of the cat if you are the one to open the cage. After one hour, there are two equally likely scenarios regarding whether the cat is alive or dead. Wolf (1981, p. 189-191) observes: "In a certain sense, the universe has become *two* universes. In one, there is a living cat and a happy you, and in the other, there is a dead cat and a sad you." If you did not reach over to open the cage and thereby disturb it (potentiate the wave function, or pop the qwiff), these two universes would go on forever, side by side, indefinitely. When you open the cage you *create* the reality that you find. Until then, there is only potential.

This position, incidentally, is quite in line with the "new" physics. Zukav, in his scientific and metaphysical treatment of the new physics, *The Dancing Wu-Li Masters* (1979, p. 28), introduces first the differences between Newtonian mechanics and quantum mechanics:

The lesson of Newtonian physics is that the universe is governed by laws that are susceptible to rational understanding. . . .

Contrary to Newtonian physics, quantum mechanics tells us that our knowledge of what governs events on the subatomic level is not nearly what we assumed it would be. It tells us that we cannot predict subatomic phenomena with any certainty. We only can predict their probabilities.

Philosophically, however, the implications of quantum mechanics are psychedelic. Not only do we influence our reality, but, in some degree, we actually *create* it. Because it is the nature of things that we can know either the momentum of a particle or its position, but not both, *we must choose*, which of these two properties we want to determine. Metaphysically, this is very close to saying that we *create* certain properties because we choose to measure these properties. Said another way, it is possible that we create something that has position, for example, like a particle, because we are intent on determining position and it is impossible to determine position without having some *thing* occupy the position that we want to determine. (emphasis in original)

Zukav, working with physicists to write this book, asserts that they are asking questions that have an eerie tone for nonphysicists: "*Did we create the particles that we are experimenting with?*" He quotes Wheeler, a physicist at Princeton, who wrote:

May the universe in some strange sense be "brought into being" by the participation of those who participate? . . . The vital act is the act of participation. "Participator" is the incontrovertible new concept given by quantum mechanics. It strikes down the term "observer" of classical theory, the man who stands safely behind the thick glass wall and watches what goes on without taking part. It can't be done, quantum mechanics says. (p. 29)

We should also note that some physicists are now postulating the existence of an infinite number of parallel universes. New parallel universes are created by each instance (of which there must be billions each second throughout the universe) of popping the qwiff, actions analogous to opening the cage containing Schrödinger's cat. This is a radical position indeed, but one now assumed by many responsible, creative, and perfectly sane scientists.

WHAT IS A REASONABLE POSTURE REGARDING REALITY?

Although we are quite drawn to ontological position 4, created reality, it is not necessary for our purposes to adopt so radical a stance (although it is a perfectly reasonable one for a contemporary physicist). Instead, we shall settle for a less extreme alternative: position 3, constructed reality. Position 4 requires a greater suspension of disbelief than does the idea of constructed reality. Certainly the notion of constructed reality is quite sophisticated in itself; it will readily handle social and behavioral realities, which are those realities addressed by the kind of inquiry in which we are basically interested.

To follow an earlier argument for a moment, the reader might note that while positions 1 and 2 adopted virtually the same posture on reality—that is, that there is a reality—and the only quarrel came in whether or not individuals might ever know it wholly, ontological positions 3 and 4 also exhibit similarity in their basic assumptions about the *nature* of reality—that is, *it doesn't exist until either* (1) it is *constructed* by an actor or (2) it is *created* by a participant.

EXAMPLES OF CONSTRUCTED REALITIES

There are a number of examples to which we could point that would provide a "feel" (the development of a tacit "mass") for the notion

of constructed realities. For example, consider *labels*, *euphemisms*, and *stereotypes*. Euphemisms construct reality in ways that make it more palatable. Stereotypes construct reality so as to make it easy to deal with, and in order to create quick reference points for categorization. Labels help us sort reality easily. Consider the following quotation from an essay by Thomas Griffith, "Stuck with Labels," that appeared in *Time* magazine, April 27, 1981:

Everyone admits the injustice, the oversimplification of labels, but the press sticks them on anything and everything nonetheless. When it doesn't invent a label itself, the press gratefully seizes on someone else's catch phrase. That's how Ronald Reagan early captured the high ground on his budget cutting. He promised not to harm the "truly needy" and to provide a "safety net" for protected groups like the aged. These soothingly imprecise phrases, so often repeated by Republican orators and in the columns, have set the tone of the budget debate.

But, Griffith goes on to say, labels can "mislead," they lack subtlety ("a button that says RIGHT TO LIFE or RIGHT TO CHOOSE leaves little space for reservations"), and they may even reverse meaning (he points out that the label "conservative" has become fashionable again).

Another example of reality construction is apparent in the *proceedings in a court of law*. The adversarial system is designed on the one hand to construct at least two realities for the jury's consideration and, on the other hand, to create a single reality from the multiple memories of witnesses (a distillation of the essence of the crime). The essence of defense is that the jury can be brought to see an alternative construction of the reality that the prosecution distills, so that the evidence absolves the defendant. The way to instill the legendary "reasonable doubt" is to spin (construct) an alternative reality.

There is a story of a famous trial lawyer who had never lost a case. In a trial in which the body had never been found, the lawyer attempted to instill doubt by saying continuously, while pointing at the courtroom door, "At any moment, the victim might come walking through that door." He thought he had won the case because each time he said that the jury would involuntarily look at the door, as if expecting that the alleged victim *would* walk through it momentarily. The doubt, he thought, had been planted. But the jury returned a verdict of guilty, because, as the foreman later explained to the stunned lawyer, "We noticed that the defendant *never* looked expectantly at the door." The moral of the story is, of course, that everyone is free to construct reality for his or her own uses, and the jury "read" the reality of the defendant quite accurately.

A third example of construction is linguistic construction, usually encapsulated best in *dictionaries*. The study of a dictionary—what words are in it and what words are not—is a useful way to determine the characteristics of a culture. Recall Orwell's *1984* and "newspeak," which did not include words for concepts such as freedom and democracy. Without such words the reality of their achievement can never come to pass.

Madison Avenue sales messages constitute a fourth example of reality construction. Virtually all advertising is directed at instilling some reconstruction that the advertiser finds useful; a macho image if one is selling powerful cars or liquor; the image of a youthful, slim, and sexy woman if the item to be hawked is cosmetics or perfume; the image of a connoisseur or *bon vivant* if one is selling theatre or concert tickets. A recent *Consumer's Report* (July 1983) has an article showing how Miller and Budweiser are selling beer as a reward (usually for hard work): "This Bud's for you!"

A fifth example, and one that is most appropriate in this work, is that of *theories*. All theories, including methodological theories, are constructions. This fact has enormous significance in relation to the problem of value-resonance, which will be considered in Chapter 7. But we know already from earlier discussions on the work of Julianne Ford (see Chapters 1 and 2) that no theory can ever be tested directly.

A final example concerns a joint U.S.-Soviet social studies project, which has been undertaken by a number of social studies curriculum developers in both countries. A newspaper article recently ran the headline, "U.S.-Soviet Textbook Project May Be Delayed" (Bloomington, Indiana *Herald-Telephone*, July 11, 1981, pp. 1,7). The article cited an interim report of this project that included some examples of the Russian response to American textbooks. In part, the article said:

Textbooks in both countries tend to glorify the accomplishments of their own nation and denigrate the contribution of others. . . .

The report lists some samples of information which the reviewers questioned. A Soviet 10th grade world history book for example reads: "The ruling circles of England, France, and the U.S.A. encouraged the aggressors (Germany, Italy, and Japan in World War II) to attack the U.S.S.R., counting on the mutual destruction of both sides in such a war and the strengthening of their own position in the post-war world." . . .

Concerning the bombing of Hiroshima and Nagasaki, the book reads: "The use of atomic weapons against Japan was not provoked by a military necessity. This inhuman act served long-term political goals;

to intimidate the nations of the world and force them to bow before the power of the U.S.A."

The Soviet author states that the fate of the Japanese was sealed by the Soviet entry into the war on August 8, 1945, and therefore the atomic weapons were not needed.

[On the other hand] the Soviet response to American textbooks contains numerous claims of bias and misinformation in the sections dealing with the Soviet Union. . . . "Major attention is devoted to Soviet foreign policy. Many textbooks do not provide the most basic information about the Soviet Union's political and socio-economic systems, its economy and culture."

The reviewers claimed that much information about the October Revolution was biased and contained factual errors and that the Bolsheviks were not given proper credit for their role in the revolution. Reviewers objected to the use of such terms as "police state," "totalitarian regime," and "undemocratic system" in describing the Soviet Union political system.

Does anyone doubt that this project will be some time in getting off the ground?

The point is that examples of such constructions exist everywhere. A person need not be a psychologist, a chemist, or a physicist in order to confront the clashes that are the daily fender-benders of reality. Weekly news magazines and local hometown newspapers abound with constructions and reconstructions of social and political reality. They are there for the looking and for the reading.

A WORD ON RATIONALISM

"Rational" is a word currently in favor. "Rationalizing" is a word the current connotation of which is somehow psychologically disparaging. "Irrational" is a word altogether too loosely applied in contemporary society. "Rational" has come to mean (as its root suggests) that sweet reason has prevailed (usually in the political decision-making arena); "rationalizing" has come to mean that someone, having committed some act to which he or she had given little overt thought, now has made up some excuse for the behavior; and "irrational" has come to mean very nearly out of one's mind. We would like to take issue with virtually every usage in common parlance today.

Rationalizing, for instance, is nothing more than sense making in the face of chaos, subconscious behavior, tacit knowledge, and outright

forgetfulness. It is part and parcel of reality construction for individuals and institutions to engage in *ex post facto* reasoning to justify, explain, attribute, or make sense of behavior. As such, it is an apparently quite human characteristic that merely seeks to impose order on conflicting stimuli, disorder, and information overload. It is a word that has fallen into disrepute quite undeservedly.

Rationalism and irrationalism, however, represent a more dangerous combination, since the dualism implied by this juxtaposition asserts that if one does not see reality my way, then one is, clearly, irrational. Rejecting rationalism (on the part of others) does not mean automatic acceptance of irrationalism. Rather, it may mean acceptance of multiple rationales, or conflicting value systems, or even separate realities. The parallel is drawn to a statistical argument, that of accepting or rejecting the null hypothesis. If one rejects the null hypothesis, it does not mean that only one other alternative may be accepted. There are a variety of alternatives that may account for the rejection of the null hypothesis. Rejection of the null only means that the null hypothesis is rejected. By the same token, rejecting rationalism is not tantamount to accepting irrationalism. Between rationalism and irrationalism, there exist an infinity of rationales and realities.

NOTES

1. *Evaluation News*, although a true newsletter, was at that time published without volume numbers, and the issues appeared sporadically; thus it is not possible to give a more complete reference here.

2. There are two other theories of truth, a "correspondence" theory and a "coherence" theory. A "correspondence" theory of truth asserts that observation sentences are true if they correspond to reality (that is, exhibit isomorphism). This is a traditional positivist/instrumentalist or operationalist position associated with naive realism. A "coherence" theory asserts that an observation sentence is warrantably asserted if and only if it is provable within some given theory. Truth is coherence within a system (see Hesse, 1980, pp. 145ff.).