

The Human and the Cognitive Models: Criticism and Reply

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The papers in the symposium presented in this issue concentrated on questions of agency, meaning, and judgment from what we have offered as a general "telic" perspective. The responses to the papers were thoughtful and varied, ranging from a contention that we have not departed far enough from cognitive psychology, to a contention that we have gone too far, creating a straw man. The responses do afford opportunity to clarify, and illustrate the case we have attempted to make against the "cognitive tradition."

What is Cognitive Psychology?

Leahey (this issue) is less than enthusiastic about the case made against cognitive psychology by the symposium, not because the characterizations and criticisms are wrong, but because they are "beside the point." He contends that the cognitive movement has been openly mechanistic rather than humanistic, and that everyone admits it. Two points of analysis are relevant here. First, we would simply refer the reader (and Professor Leahey) to the defenses of cognitive psychology in this issue, particularly those of Chaplin, Martindale, and Muscari. These authors accuse the symposium contributors of overlooking the non-mechanistic flavor of much of the cognitive movement.

Obviously it is too simple to say that everyone who either adopts or is given the label "cognitive psychologist" is a mechanist and does everything we say cognitive psychologists do. The point is, however, that there is (even if only emerging, in the recognition of most psychologists) a metaphysical position and set of assumptions underlying a "cognitive" approach. The symposium examines this position in order to articulate its weaknesses and engage colleagues in discussion.

The second point of analysis in response to Leahey's observation is that students of psychology often and consistently miscast the cognitive movement. Students, I have found, are uniformly quite shocked to hear that cognitive psychology, like behaviorism, is a mechanistic movement.

Chaplin and Martindale (this issue) argue that the characterization of cognitive psychology challenged in the symposium is too narrow, that we have attacked an out-dated version of cognitive psychology, and that newer versions are more congenial to the issues of agency and meaning. I will reserve discussion of the nature of such newer species of cognitive psychology for the next section, and comment here on the notion that there are such "enlightened" cognitive psychologies.

What is at issue in the symposium is the nature and adequacy of an entire metaphysical system (and there is such a system underlying cognitive psychology—as there is any psychology) of which specific theories may be more or less characteristic. The central feature of the metaphysical system of the cognitive movement is an insidious mechanism, or as we have elsewhere characterized it, a "metaphysic of things" (Faulconer and Williams, 1985). In the symposium, we are criticizing cognitive psychology as we have found it most completely stated as a tradition or "approach" (Giorgi, 1970). From the perspective of the symposium papers, the judgment as to whether any one psychologist is or is not a cognitive psychologist is made on the basis of how well he or she fits into this tradition in his or her work. If there is a problem in criticizing cognitive psychology in general, perhaps it is because the term "cognitive psychology" has become too loose, so that anyone who is not a behaviorist, nor an avowed humanist, is by default a cognitive psychologist. If this is indeed the case a careful examination of the tradition is all the more warranted.

This last possibility—the looseness of the "cognitive" rubric—is illustrated by Chaplin's list of cognitive psychologists who should not be included in the criticism we have offered. The first one mentioned is George Kelly. I would question, however, whether Kelly is a cognitivist for any reasons other than that writers of textbooks have not known where else to put him, and that he does talk rather a lot about how people's minds work. Chaplin presents a list of "cognitive" psychologists who placed emphasis on a type of "constructivism" in mind. At the end of the "behavioral skewer" most removed from behaviorism is the work of Markus and Nurius (1986) on the self. After an examination of this particular work I would question why they should be claimed as "cognitive" psychologists at all. Aside from one section claiming support from cognitive research, there is very little to put them in the cognitive tradition (except that maybe they do not fit elsewhere either). There is some traditional mediational rhetoric in the piece, but on the whole the authors seem to have resisted quite well the tendency in cognitive literature to multiply entities and fit all phenomena into an information flow. Any theory or model that deals with human thought is not necessarily a cognitive psychology. We have defined and dealt with cognitive psychology as a tradition, grounded in a mechanist metaphysic. The *tradition* is

under critique here – not individual psychologists – except as they manifest in their work the worst of the tradition.

In short, we are pleased to see an expanded (and expanding) list of psychologists who have envisioned the need to advance beyond simple mediation theories of human functioning. It should be noted, however, that a recognition of human capacity to plan, create, and choose thought and action is not, in itself, evidence that the account given for such a capacity is adequate, nor does it guarantee that the problems of the traditional cognitive approach have been avoided in the account. A discussion of the adequacy of each individual departure from the traditional mechanism underlying the cognitive tradition would be an important and interesting study, but beyond the scope and space of the present undertaking.

Can Cognitive Psychology “Account For” Meaning?

The heart of the cognitive approach to psychology is model building. The models are built in the attempt to “account for” particular human phenomena of interest to the modelers. Whenever a challenge to the adequacy of the model arises, the model must be altered to “account for” the new phenomenon. Usually, in the cognitive tradition, the model is altered by the postulation of some new stage, processor, or function which then allows one to show how the model *could* now do what it *could not* do before. In their critique, Muscari and Martindale suggest that cognitive psychology can, in essence, account for the type of agency, dialectical reasoning and meaning which I suggested were lacking in the tradition.

This strategy of “accounting for” phenomena, in a sense, makes the cognitive model impossible to refute. Because cognitive psychologists are bright and clever, they can in fact account for nearly (I hold out some hope) any cognitive or behavioral phenomena. A particular human cognitive act *could* happen the way a model prescribes. This strategy is not unlike that employed by classical behaviorists in accounting for increasingly complex behaviors. The important question is not, however, whether cognitive psychologists are clever enough to propose sufficiently sophisticated processes to perform certain functions, but rather whether cognitive accounts are faithful to human life and meaning.

Leahey (this issue) suggests at one point that whether or not the cognitive account succeeds is an empirical question. I disagree strenuously with this suggestion. The important question for psychology is the conceptual one, concerning the human adequacy of the “accounting for.” The symposium papers question the appropriateness of a strategy of “accounting for,” and the metaphysical ground on which the cognitive account is constructed. The issues, as we see them, go beyond the cleverness of any particular account to such things as (a) the metaphysical assumptions the cognitive approach makes about human beings, (b) what we have to give up in holding to such an explanatory strategy, (c) the fact that the metaphysic that generates both cognitive and behaviorist psychology is not a necessary, but rather a possible one, and (d) how

shall we "account for" research evidence and other human data which seem to reveal genuine meaning and agency.

Responses by three of the discussants, Martindale, Muscari, and Chaplin, illustrate the difference between the issues as we have attempted to raise them from a critical standpoint, and the issues as they are seen from within the cognitive perspective itself. Muscari criticizes the symposium papers for failing to take seriously how psychological factors interact over time and between levels of organization to influence thoughts and feelings people may not be aware of. This seems to be a criticism that we are not complex enough in our view of human beings. If however, one resists the temptation to reify (in any sense) such things as units of information, components of a cognitive system, and levels of organization and consciousness, then the kind of complexity the cognitive approach exhibits is obviated. We are left with human beings, within a language and cultural context, at work in a world of genuine possibility. On one level such an account is quite simple, and on another level "complex" enough to be faithful to the richness of human experience. Muscari's criticism seems to be that we have not offered a very good cognitive model.

Martindale, in seeking to preserve the cognitive approach to "accounting for" such things as teleology, uses the example of Minsky's (1985) "difference engine." A telic behavior requires conceiving of a certain "mental pattern" and then doing something (anything at all?) until "reality" matches the pattern. Any entity which performs this function is a "difference engine." Martindale fails to see the "intelligence loan" (Dennett, 1978) in this type of explanation. An intelligence loan, by definition, involves the use of the language of human qualities to give an account of an act, along with an underlying determination to give a final and truer account in terms of blind mechanism. To explain telic behavior (a human quality) as a difference engine (a mechanism) seems to be a very good example of such a loan. The metaphor of the engine (see Westcott's analysis of metaphor in this issue) betrays the underlying mechanist assumption which is the essence of the cognitive intelligence loan. Such explanation will continue to be an intelligence loan, and a mere loan, until the engine is isolated and unmistakably verified, a course of events unlikely even with the best and most rigorous scientific methods (Lakatos, 1970).

A final illustration of "accounting for" which will conclude this discussion can be seen in a point made by Chaplin. He essentially agrees with the symposium papers that cognitive theories "need to postulate purposive and dialectical mechanisms." I would submit, however, that this oxymoron (a) is not the contention of the symposium papers, and (b) is not a good solution to the problem, principally because it is oxymoron. We can have either genuine purpose or mechanism, but not both — at least the former cannot be reduced to the later. The attempt to "account for" purpose with mechanism might save the cognitive model, but it does not resolve the central problem of the cognitive tradition.

Parsimony

Martindale invokes the principle of parsimony to help adjudicate between a humanistic and a mechanistic model, labeling the former more "complicated" than the latter. However, "complicatedness" is not the proper expression of the concern at the heart of parsimony. As it is more commonly invoked, parsimony cautions against the needless multiplying of explanatory entities, and against explanations with a larger number of unwarranted assumptions than an alternative adequate explanation. Two comments should be made in this light. First, the issue of mechanism (in its common cognitive form) vs. humanism as we have sketched it here rests on a clash of metaphysical positions and assumptions. The principle of parsimony cannot adjudicate between two such positions because what does or does not constitute an unnecessary entity or an unwarranted assumption is entirely dependent on the larger metaphysical systems within which the positions are framed. Parsimony may indeed be usefully invoked to help us choose between two theories or models within a previously accepted metaphysical system (paradigm), but it can be of no benefit in arbitrating between two fundamentally different systems.

In relation to this, then, the second point to be made is that from one perspective, common cognitive explanations might be seen as quite unparsimonious. I take an example from the rhetoric of an "enlightened" cognitive position (Markus and Nurius, 1986, p. 955). It does not seem particularly parsimonious to say that "self-knowledge not only provides a *set of interpretive frameworks* for making sense of past behavior, [but] it also provides the *means-ends patterns* for new behavior [emphasis mine]." We might (more) simply say that as people live their lives their understanding of the past as well as the future changes, and they often act on this understanding. This latter explanation only seems less parsimonious from a perspective where elementary mechanisms have the status of metaphysical *a priori*'s.

Martindale's argument from parsimony seems to be related to his claim that ultimate meaningfulness in individual lives must be disallowed in order to construct a science of psychology. He makes a related point about agency, i.e., that scientific psychology demands that free will can only be "error variance." I submit that there is no necessity for science to assume meaninglessness and a non-agentive position. Only one type of science must make such assumptions, one grounded in the mechanistic metaphysic of things. Science as a method need not presuppose meaninglessness. We can perform adequate, public, and careful empirical investigations of many meaningful and agentive human phenomena.

Is a Teleological Psychology Adequate?

Several of the critics of the symposium papers have questioned whether the sort of teleological approach advocated by the majority of the papers can offer a

full and satisfactory account of human action, as a genuine alternative to the cognitive model. The central concern is expressed by Muscari in his suggestion that a teleological model gives too much emphasis to rationalism and individualism.

Leahey suggests that, in my paper (in this issue), I have grounded meaning in unpredictability. I believe this is a misreading of the position I advocate. I suggest rather that meaning exists only in a context of openness and possibility. This is not to say that it reduces to unpredictability (which is Martindale's argument). The ground of all meaning is the social and cultural context of the human world itself; however, this context is itself an openness, a possibility. Otherwise we are left with simple historicism and environmental determinism. Such possibility does not necessarily imply unpredictability. It only does so from the mechanistic point of view I am refuting in the paper. I have argued (albeit briefly) elsewhere (Williams and Lilly, 1985) that dialectics of the sort advocated in the symposium is closely tied — at least in functional terms — to the contextual openness and possibility which are at the core of the social contextualism found in the phenomenological and ethogenic movements.

It may be that a "pure" or "classical" teleology is an inadequate explanation of meaning and agency. Certainly teleologists must take care not to fall into the same sort of "accounting for" that we have observed in the cognitive tradition. There is a danger that a purely teleological approach may fail to take seriously enough the social and cultural basis of all human action including meaningful acts of freedom. This concern is well articulated by Leahey, and particularly by Westerman (this issue).

As a metaphysical language, a pure or classical teleology may not yield a satisfactory understanding of human life and agency (some accounts may be more satisfactory than others). As a functional language it makes contact with much of what is common human experience. The language of most cultures requires that we deal with such things as goals, intentions, and purposes in any psychological account of meaningful human action. However, the question that remains is: What metaphysic (or way of understanding which functions much like a traditional metaphysic) shall we allow to serve as our grounding as we give an account of such teleological concepts as agency, meaning and choice? I have attempted to show that the metaphysic on which the cognitive tradition is based cannot give a satisfactory (or meaningful) account of the human world. Whether a purely teleological account is satisfactory depends on the reading given to the teleological account. We have argued elsewhere (Warner and Williams, 1984) that there is no insurmountable incompatibility between the sort of telic account given by Rychlak and the social contextualism advocated by the hermeneutic and ethogenic approaches.

Clearly, I believe (and all the symposium participants would agree), we must, as Leahey suggests, take meaning and purpose as the starting point for any understanding of humanity, not as a derivative of some other process, either mechanical or teleological. It seems that in any single paper one is always unable

to both make an adequate refutation of the tradition and present an adequate treatment of the alternative. Westerman's emphasis on the social and the contextual aspects of agency and meaning is an important contribution.

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