SOME REACTIONS TO PARADIGMATIC BEHAVIORISM'S THEORY OF INTELLIGENCE

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In «Paradigmatic behaviorism's theory of intelligence: A third-generation approach to cognition», Arthur STAATS provides a brief, albeit informative overview of his third generation behavioral conception of intelligence and other complex verbal (cognitive) phenomena. It is an interesting, eminently readable account of paradigmatic behaviorism's contributions in these areas. Given the space confines of a single article, STAATS, could not give more than a general outline of his position. Interested readers will have to look elsewhere for the meat for the conceptual skeleton offered here. The references list for the paper provides many suggestions in this regard. Perhaps the most relevant to the present paper is the 1971 book, *Child learning, intelligence and personality*, in which much of the basis for the studies described in the present paper is presented.

It is to STAATS's credit that, like many second-generation behaviorists, he puts forth an especially pragmatic perspective on the problem of intelligence. What is it afterall, if more than a carefully organized and integrated hierarchy of various specific skills (or subrepertoires as STAATS refers to them)? We say a person is intelligent when s/he responds effectively in certain environments. The more environments in which a person is effective, the more generally intelligent s/he is seen to be. Moreover, we give more weight to certain environments than to others when identifying intelligence, i. e., effective performance. For example, effective responding in those environmental circumstances calling for the placement of one brick on top of and beside others in monotonous repetition until a wall results is not generally regarded as intelligent behavior. Or, if it is, it is seen as such a narrowly proscribed response as to have limited importance in terms of general intellectual fuctioning.

In contrast, responding effectively in an academic-like environment involving complex verbal skills is given much more weight in identifying intelligence. This is because of the general applicability of the repertoires needed for effective performance in these environments. The person who is an effective performer in academic-like circumstances is seen as more intelligent than someone who is not effective in these settings (regardless of possible savant-like qualities manifested elsewhere) because of the generalizable nature of the repertoires needed for effective academic performance.

What STAATS offers in his «theory» of

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intelligence is a task analysis of the component skills tapped by conventional measures of intelligence and academic achievement that is perhaps more thorough than that of others. That children taught the basic behavioral repertoires reflected in these skills are then shown to do better on tests of intelligence and academic achievement is, if not especially startling, at least a testament to STAATS' and his colleagues proficiency with task analysis. And, this is not meant in any way to demean or denigrate the value of their efforts. They do us a great favor in demystifying intelligence and intellectual behavior. If it can be taught, need we think of it as anything more than learned?

Contemporary cognitive psychologists want to go beyond definitions of intelligence as what intelligence tests measure and seek causes in complex interactions between biochemical and physical elements of intra and interpersonal environments. That the brain functions like a computer is seen by some as evidence that more is involved than can be handled adequately by second (or even third) generation behavioral accounts. It is likely that, as the world becomes increasingly computer dependent, the more effective performers in it will be those persons who behave like computers. Interestingly, we will probably view these computer-like persons as more intelligent than persons behaving less like them. That is, to the extent that computer mimicking repertoires are synonymous with facility with computers, computer literate or facile people will be more intelligent than computer illiterate or less facile ones.

The point is that intelligence need be viewed as nothing more than effective performance in specific environments. If environments change materially, our definition of intelligence changes because different repertoires are now needed for effectiveness. Paradigmatic behaviorism's theory of intelligence, based as it is on an analysis of the basic behavioral repertoires needed in complex environments, should have no trouble staying un with the times. Should the computer literate person be the more intelligent, paradigmatic behaviorism can produce more of them. This is so, because it contains, inherently, the technology to do so.

Unfortunately, this very important attribute of paradigmatic behaviorism deserves more emphasis than STAATS gives it. He seems to prefer, instead, to grapple with the «behaviorism describes but does not explain» criticism. In doing so, he suggests that basic behavioral repertoires can be viewed as causes of more complex intellectual and personality attributes. Apparently this is so because they participate in «cumulative-hierarchical learning structures». The reader will have to consult other sources for a definition and treatment of such structures, as they are not explained in the present paper. It is hard to see, however, how the basic behavioral repertoire can be viewed as a cause, at least in the sense typically meant by nonbehaviorists. Does the fact that complex performances can be analyzed into subparts which, when improved, are associated with improvements in the complex performance therefore mean that these «subrepertoires» caused the more complex performance? If so, what caused the subrepertoires? We are shown from STAATS' very clear writing just how such subrepertoires *can* be produced. Is this the same as knowing how they *are* typically produced, however? My guess is that most readers will have difficulties whith the logic of such an analysis.

In sum, it can be said that the excellent paper by STAATS presents a clear overview of the history of paradigmatic behaviorism and its contributions to a theory of intelligence. The recognition of the importance of respondent as well as operant contributions to the development of relatively simple responses and the combination of these responses into cumulative hierarchical structures to form more complex repertoires are clear contributions of STAATS' third-generation behavioral perspective. Referring to basic behavioral repertoires as causes seems unnecessary, however, and not likely to be applauded. Whether paradigmatic behaviorism is any more hueristically va-

luable than its second generation predecessors in research on intelligence remains to be seen. It is similar in requiring a rather tedious accumulation of «building block» studies such as those STAATS describes in the present paper. Will it be sexy enough to divert attention from the big bang, quick fix proposals being touted today?

REFERENCES

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