Getting It Right: A Reply to Baum

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In this reply to Baum, I emphasize that the failure to understand the processes associated with scientific verbal behavior may result in scientific statements like the generalized matching law that do not accurately reflect cause-and-effect relations.

Key words: contemplative ideal, technological ideal, pragmatism, prediction and control, generalized matching law

Baum has responded to my recent paper on stages of psychological theorizing, with the generalized matching law as a case in point (Moore, 2010a). Baum is correct that this paper extends an argument that began in Moore (1983) and continued in Moore (2008), as well as in two recent empirical papers (Moore, 2009, 2010b). In the review process associated with Moore (2008), Baum identified himself as a referee and recommended against publication. I infer from his current comments that he would have similarly recommended against the recent paper had he been a referee.

I have been disappointed for some years now that Baum is not apparently interested in coming into contact with ideas other than his own. Nevertheless, I hold out hope that one day he will get it right. Of course, whether behavior analysis 25 years from now will reflect anything either Baum or I have said or done in the last 25 years remains to be seen.

Moore (2010a) visited the issue raised by Smith (1986), who rhetorically pondered whether the emphasis of much quantitatively oriented research in the experimental analysis of behavior (my example was the generalized matching law) is in the tradition of the technological ideal or the contemplative ideal. The technological ideal lends itself to predic-

tion and control. It is based on knowledge of causal relations, as revealed through interventions and effective action. In contrast, the contemplative ideal is based largely on passive observation. It emphasizes classification of natural phenomena and systematic description. It further argues that a full understanding of nature is attainable only through theoretical knowledge (Moore, 2010a).

I was concerned that much quantitatively oriented contemporary research was in the tradition of the contemplative ideal, and as a consequence departed from the pragmatic tradition of behavior analysis. If anything, the predictions that are derived from the generalized matching law are effect-to-effect predictions. Effect-to-effect predictions are useful, but only to a point: By emphasizing ratios of already observed reinforcement and responding, the generalized matching law fails to identify causal relations that experimenters can actually manipulate to produce specified outcomes, at least not without further assumptions.

The larger question concerned the epistemology of the scientist. What does scientific knowledge mean? For the pragmatism of radical behaviorism, effective action is the benchmark of scientific knowledge. The most effective action comes from contact with causal relations. Of course, we can content ourselves with a descriptive quantitative model that accounts for some agreeable percentage of the variance across a series of observa-

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tions and thereby argue that we have achieved the goals of science. However, to so argue in the absence of knowledge about causal relations is to commit to the contemplative ideal and matters of “cognitive significance.” These matters are some distance from the technological ideal and matters of effective action. If we understand that science progresses through a series of stages, we can see that certain statements may take the form of activity at higher stages, but are not actually derived from lower stage activity.

I expressed concerned that Stevens’ psychophysical law and the generalized matching law suffer because they take the form of higher stage statements without being correlated closely enough with lower stage activity. It is all too easy to assume that there is another dimension in which immutable “laws of nature” operate, and the job of science is to tap into this dimension through clever quantitative techniques. It is all too easy to assume that we can only stand on the banks of the behavioral stream, describing events that flow past us without being able to enter into the stream to participate in the specified outcome of behavioral processes ourselves. It is all too easy to assume that

the causes and mechanisms that underlie behavior lie elsewhere, spurring the conclusion that behavior is a subject matter beyond the ability of humans to do anything about. I earnestly commend these matters to Baum’s considerable intellectual acumen, and look forward to his research concerned with the identification of what causes matching to occur or not to occur, among other topics.

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