
EDITORIAL POSTLUDE

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Theory, Data, Interpretations, and More Theory

Even though the paper had been revised and resubmitted for a second round of reviews at *JCA*, at some level I felt like the authors were perversely begging the editorial referees to recommend rejection of the manuscript. The revision involved an extensive rewriting of some sections, citations were added, the data were subjected to additional new analysis, and the authors provided very detailed supplemental notes to explain the changes to the reviewers. Yet for the directive from the decision on the first version that they provide a stronger conceptual context for study, the authors only noted they considered it unnecessary.

To my amazement, they refused to provide a theoretical basis for the research. The omission was explained with the simple assertion that “We are behaviorists” and therefore not concerned with theory, as if that would excuse data collection for its own sake.

At the most basic level, they misunderstood that psychologists “invented” behaviorism itself as a basis for theoretical explanations, prediction and testing. If you will forgive a minor lapse into the pedantic, the original term referenced a direction for research in a social science that would allow control and measurement of all relevant variables by ignoring human thought or cognition. Instead of speculating as to what might transpire in people’s minds, only behavior responses would be measured in relation to test stimuli so researchers could conduct experiments that would provide stronger scientific tests of theoretical predictions. In other words, behaviorism was a route to being more “scientific” in a manner similar to the so-called hard sciences of chemistry or physics. This narrow and more directly measurable focus, in turn, allowed for greater use of statistical analysis of experimental results. The goal was a greater use of scientific methods for stronger theories, or so they hoped.

This tendency for stimulus–response experiments and overall preference for some type of mathematical statement has today spread into other social sciences. To critics of these approaches, important research questions are ignored if they do not fit into confines of a quantitative study. The techniques for mathematical data manipulation have become increasingly sophisticated and complex, and governed by strict assumptions, as if the analytical method is an end unto itself. Making more sense might be the preeminent economist and mathematician of the late 19th century Alfred Marshall who is credited with stating a five-step directive for use of math in research: (1) use it as a shorthand language rather than as an engine of inquiry, (2) keep them until you are done, (3) translate into English; (4) illustrate with examples that are important in real life, and (5) burn the mathematics. In the 21st century, people have forgotten this.

But my point here is not to condemn any research approach, be it quantitative or qualitative, but to place emphasis on the thought behind the research. “Numbers suggest, constrain, and refute; they do not, by themselves, specify the content of scientific theories” (Gould 1981, 106). As the numbers and methods gain greater attention, some might forget or ignore the need for a conceptual foundation that must precede the analysis.

The late naturalist Stephen Jay Gould repeatedly explained that “We often think, naively, that missing data are the primary impediments to intellectual progress—just find the right facts and all problems will dissipate. But barriers are often deeper and more abstract in thought. We must have access to the right metaphor, not only the requisite information. Revolutionary thinkers are not, primarily, gatherers of facts, but weavers of new intellectual structures” (Gould 1985, 151). As one of his many examples, he explained that the original theories of DNA and genetics needed the invention of a computer not to crunch existing data but to provide a conceptual metaphor for how biological binary signals can work.

Decades ago, even as a naive undergraduate buried in the library stacks for a research paper, I was struck by a marked stylistic difference of psychology journals versus those in economics or business. The business journals had an almost-glossy magazine style to the presentation, with method, results or data analysis mere subheads of a multi-page article. The psychology journals I read back then printed method and results sections in a much smaller font, making them appear as a minor part of the research report. In much larger type would be the literature reviews that provided the conceptual basis for the research: a survey of what is known about the area, the relevant theoretical perspectives that might apply, and the unanswered questions that the study in that article attempted to address. And at the

end, the larger normal-sized font would again be used for the discussion on what the data revealed relative to the initial questions.

The important realization is that while data collection can be expensive and time consuming, it really is the easy part of research. Even though the government databases such as the Survey of Consumer Finances provide a wealth of information, they still require researchers to provide context, analysis and insight.

Too many manuscripts come to the *JCA* offices looking as if the data were collected first and the literature review written around it later. Sometimes the citations are more an eclectic list than a review, an ill-conceived effort to reference all articles that might be written on the topic by possible reviewers on the Editorial Board. Relevant literature would be listed but not integrated, then ignored in planning the research or interpreting the results. As reviewers note additional relevant theory or research that could impact the context or interpretation of the data, these authors would add the citations to their list with a gratuitous vapid in-body citation and sometimes do not even appear to have read the recommended reference.

Intuitively, it is not that difficult to find important research questions for the consumers' interest. Public policy and consumer protection are itself driven by some assumptions or expectations of consumers in the marketplace (e.g., France and Bone 2005). Efforts to change consumers' unsafe habits need an understanding of how the targeted audiences respond to public health messages, knowing that it might be in ways not generally expected or understood (e.g., Smith and Stutts 2006; Wolburg 2006). With growing concerns of consumers' financial literacy and behavior, any efforts to improve matters must have some effort at explaining differences among demographic groups (e.g., Perry and Morris 2005). While consumers might possess a popular belief that they are manipulated by marketing mind control, the underlying theory explains how such fears not based in reality (e.g., Broyles 2006).

In case you have any doubts, the revised paper mentioned above by the atheoretical self-designated "behaviorists" was rejected. They really were not researchers but data pile generators, providing no context, understanding or reason why anyone should care about all of their analysis. Interesting research articles need more than the presentation of a new data pile, and a contribution to the literature needs a lot more.

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