Journal of Contextual Behavioral Science 4 (2015) 225–230

Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: www.elsevier.com/locate/jcbs

Contextualism, psychological science, and the question of ontology

James D. Herbert *, Flavia Padovani

Drexel University, Philadelphia, PA 19104, USA

ARTICLE INFO

Article history:
Received 27 May 2014
Received in revised form
5 November 2014
Accepted 14 November 2014

Keywords:
Functional contextualism
Realism
Pragmatism
Philosophy
Ontology
Contextual behavioral science

ABSTRACT

There has recently been a renewed interest in philosophy among some psychologists, particularly those working within the modern behavior analytic framework known as contextual behavioral science. Functional contextualism (FC) has emerged as an alternative to the dominant mechanistic view – generally associated with epistemological realism—within psychology. The most controversial feature of FC has been its so-called "a-ontological" stance, in which it is argued that any statements about even the mere existence of a reality independent of human sensation are meaningless. We argue that FC in fact requires the assumption of the existence of such a "reality," which we term an "independent, textured substratum," if it is to serve as an orienting function for psychological science. Moreover, wholesale rejection of any reference to any ontological dimension is itself incommensurate with the analytic goals of FC in that it unnecessarily alienates scientists who might otherwise find value in the sensitivities of FC.

> We have to remember that what we observe is not nature herself, but nature exposed to our method of questioning. Werner Heisenberg (1958/1999).

1. Introduction

Psychology as a distinct scientific discipline emerged in large part from philosophy, and from the earliest days of the field psychologists have sought to clarify the philosophical foundations of their work. Whether one recognizes it or not, philosophical assumptions are inevitable in science. Questions about what counts as the proper unit of analysis, what kinds of data and analyses are viewed as legitimate, what methods are considered acceptable, and what problems should be prioritized for study all reflect philosophical assumptions. One's philosophical attitude—even if implicit—has an orienting effect on one's scientific work. Critical examination of scientific philosophy allows more thoughtful choices about which assumptions, and hence which practices, are most likely to be useful in a given context. Philosophical clarity also helps distinguish which controversies are resolvable by empirical tests vs. which reflect foundational assumptions.

Building on the work of Pierce (1878/1995), James (1907/1995) was the first to articulate a pragmatic philosophy in early American psychology. Pepper (1942) described a pragmatic philosophical perspective he termed contextualism as one of four core scientific world views. Skinner (1974) subsequently built on this tradition, and emphasized that radical behaviorism was not a behavioral science per se, but the philosophical reflection on that science. The field known as behavior analysis in particular has historically been concerned with clarifying its philosophical assumptions and the implications of those assumptions for its methods (Kantor, 1919; Skinner, 1955).

A number of authors have observed that there appears to be a renewed interest in philosophy among some psychologists over the past two decades (Feist, 2008; Gillett, 2009; Knobe & Nichols, 2013). A search of the *PsycINFO* database, conducted in October 2014, with the keywords "philosophical psychology" revealed 830 hits over the period 2005–2014 compared to only 477 from 1995 to 2004 (although some of this increase could be an artifact of growth in indexing practices). Moreover, an inter-organizational task force on doctoral training in cognitive behavior therapy, comprised of 16 scientific and professional organizations, recently called for an increased focus on the philosophy of psychological science in the training of doctoral-level psychologists (Klepac et al., 2012). Some of the most interesting developments in the philosophy of psychology have occurred in the field of contextual behavioral science (CBS), a rapidly growing scientific and technological program that integrates philosophical, theoretical, experimental, and applied work (Hayes, Barnes-Holmes, & Wilson, 2012).

The philosophy underlying CBS is known as functional contextualism (FC; Hayes, 1993). FC has generated significant interest, and has not been without controversy. Among the most frequent flashpoints are ontological issues, and in particular how the goals of psychological science relate to statements about reality (e.g., Barnes-Holmes, 2005; Hocutt, 1994; Markham, 1995; Morris, 1997; Tonneau, 2005a, 2005b). Although a detailed analysis of FC is beyond the scope of this paper, we begin with a brief description of the perspective, including how it

* Correspondence to: Department of Psychology, Stratton Hall, Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104, USA.
E-mail address: james.herbert@drexel.edu (J.D. Herbert).

http://dx.doi.org/10.1016/j.jcbs.2014.11.005
2212-1447/

is situated with respect to other major philosophies of mainstream psychology. We then focus specifically on the question of ontology, and particularly whether it is both possible and self-consistent for FC to sidestep any reference to ontological statements altogether.

2. Functional contextualism

Following the lead of many natural scientists, most psychologists have largely adopted—even if implicitly—a mechanistic philosophy of science. Mechanism often assumes a position known as convergent epistemological realism (Laudan, 1981). According to this perspective, the universe exists as a collection of events, which have an independent existence regardless of human activity, and are organized a priori with respect to one another. The goal of science, from an epistemological point of view, is then to map this reality and its structure through the process of discovery: in the famous words of Plato—"carving nature at its joints"—creating ever-closer model-theoretical descriptions that are supposed to progressively approximate the "real" world. Truth is accordingly measured by the degree to which empirical observations correspond to predictions derived from these models; hence, the perspective adopts what is generally referred to as a "correspondence theory of truth" (Newman, 2002; O'Connor, 1975). Such a mechanistic position is currently the dominant philosophy in contemporary psychology, as reflected, for example, in the eminent psychologist Lilienfeld's (2010) statement that "…I am an unabashed adherent of the correspondence theory of truth" (p. 282).

On the one hand, there can be no doubt that mechanistic assumptions have been useful in sciences, including psychology, in order to capture the interactions among organisms or events in general. Nevertheless, a number of fundamental criticisms have been raised about mechanism as applied to psychology. In psychology, in fact, this position assumes that the scientist can somehow achieve a privileged position to see the world as it "really is," and in so doing fails to acknowledge the fact that the behavior of scientists is itself governed by historical and current factors (Skinner, 1974), and the inevitable theory-laden nature of observation. Moreover, the history of sciences is replete with examples of analyses that were believed to represent accurate reflections of reality (rather than merely useful models), but were subsequently considered inaccurate. For example, as discussed below, early representations of the atom were once assumed to reflect the fundamental nature of matter. In psychology, the history of psychopathology finds a succession of one "disorder" after another, each of which assumes a state of reified, conventional truth during its lifetime, only to be forgotten and replaced as diagnostic trends evolve. A contemporary example is posttraumatic stress disorder, which is conventionally assumed to represent a "natural kind" despite compelling evidence of its socially constructed and culturally-bound nature (Herbert & Forman, 2010; Shephard, 2003; Summerfield, 2001). Similarly, alcoholism is essentially a description of excessive drinking, but once reified, becomes a tautological explanation of the very behavior that led to its existence (Martin, 2011). Indeed, the subject matter and methods of psychology may make the field particularly susceptible to sociopolitical forces (Gergen, 1985; Raskin, 2002).

It is in response to this problem that various forms of contextualism have emerged as alternatives to the prevailing mechanistic approach in psychology. Contextualistic philosophies share certain characteristics, including an emphasis on the whole organism interacting with its environment, and pragmatic epistemologies. Hayes (1993) and Gifford and Hayes (1999) group contextualistic philosophies into two broad groups: *descriptive* and *functional*. Descriptive contextualism seeks a deep, personal, holistic, aesthetic appreciation of the phenomenon of interest, emphasizing the interaction of the participants in the analysis. The value of an analysis is measured by its *internal* coherence. All knowledge is necessarily local and personal. History is often cited as a prime example of a field based on descriptive contextualism. Historians create narratives that weave together facts, and in an important sense the facts themselves, as well as the overall demarcation of historical periods, change depending on the narrative. For example, 19th century historians (especially Jules Michelet and Jacob Burckhardt) demarcated the Renaissance by stressing discontinuity between the period and what they perceived to be its unenlightened precursor epochs. Many modern historians, however, emphasize the similarities of this period with what came before, to the point of questioning the utility of the very concept of the Renaissance, at least as traditionally conceptualized. These scholars tend to prefer terms such as "early modern" or "post-classical-and-medieval" to label this historical period (Neely, 1991). Consider also Copenhaver's (1992) description of Pietro Pomponazzi, a prominent natural philosopher working at the height of the Italian Renaissance. On the one hand, Pomponazzi doubted that the soul's immortality could be defended rationally, and directly challenged other Church dogma, including Christian miracles. He promoted a materialistic determinism. It is no wonder that Pomponazzi is often credited for preparing natural philosophy for the coming scientific revolution. However, Pomponazzi, like most educated people of the time, also espoused Medieval magic, citing as examples the stinging powers of the electric ray, and accepting without question the traditional belief that small remora ("sucker") fish could stop large ships. Depending on one's perspective, Pomponazzi can be viewed as hopelessly wedded to ancient Peripatetic dogmatism and Medieval tradition, or as a revolutionary who boldly broke new naturalistic ground. Pomponazzi embodied the spirit of a particular context, and this context seems to be captured only *partially* and *reductively* by selecting one or the other perspective, and emphasizing one or the other aspect of his work will not do justice to the complexity of this figure.

In psychology, descriptive contextualism underlies fields such as dramaturgy, hermeneutics, field theory, and certain forms of humanistic and psychoanalytic psychology. A key strength of descriptive contextualism is the acute sensitivity to the inescapable and inextricable role of the analyst in the analysis. However, this strength implies a weak foundation for science. Since all knowledge is strictly personal, there are no guides for judging any narrative as better than any other, thereby precluding the development of general principles as well as the progressivity of knowledge. In its purest form, descriptive contextualism can lead to highly problematic conclusions, such as extreme Afrocentric claims that classical Greek civilization was "stolen" from North Africa, and that racial motives have driven scholars to conspire to hide this fact (Bernal, 1987; James, 1954).[1] On the basis of clinical experience and in the face of controlled experiments, some conclude that "depth" psychotherapies like psychoanalysis are more effective than more straightforward and time-limited interventions (e.g., Freedman, Hurvich, & Ward, 2011). Descriptive contextualism provides no *objective* way of judging the relative validity of competing claims outside of each individual's personal experience. This opens the door to postmodernist rejections of science, as well as any manner of pseudoscience and quackery in which definitive-sounding claims can be made on the basis of unsystematic observations and personal beliefs. It is no wonder that such perspectives have not gained traction within mainstream academic psychology, and have led to the widespread defense of

[1] See Lefkowitz (1996, 2008) for a convincing debunking of these claims.