Natural Kinds, Human Kinds, and Historicity (1997)

Kurt Danziger

Abstract: Common psychological categories, such as personality, motivation, attitude, emotion, do not correspond to inherent divisions within a timeless human nature. They do not represent natural kinds, such as gold, which exist independently of how we depict them. The categories in terms of which humans understand their individual conduct and experience are part of human social life and change as that life changes. They are "human kinds" (Hacking) also in the sense that humans are affected by the terms in which they understand themselves. The culturally embedded and historically changing meaning of specific psychological categories forms a layer of implicit knowledge usually taken for granted by more explicit psychological theorizing.

I want to begin by making a distinction between two kinds of theorizing that go on in psychology - and any other science, for that matter. Mostly, when we talk of theorizing, we are referring to an activity that involves *explicitly* formulated propositions, explicitly articulated assumptions, and often clearly described models. However, there is another kind of theorizing that goes on out of view and usually remains behind the scenes. It is this second kind of theorizing that I want to talk about. In particular, I want to focus on certain presuppositions that are built into the network of *categories* that psychologists use to define the subject matter of their scientific and professional practice.

One cannot formulate psychologically relevant theories without the use of psychological categories. Nor can one communicate one's empirical observations without falling back on a network of pre-existing psychological categories which define what it is that is being observed. To be psychologically interesting both theories and observations have to be couched in terms of psychological categories. Learning, motivation, sensation, intelligence, personality, attitude, constitute examples of such categories.

Psychologists have devoted a great deal of care to making their theoretical concepts clear and explicit. But much of this effort has been undermined by their complaisance about the way in which psychological phenomena are categorized. The meaning of these categories carries an enormous load of unexamined and unquestioned assumptions and preconceptions. By the time explicit psychological theories are formulated, most of the theoretical work has already happened - it is embedded in the categories used to describe and classify psychological phenomena.

A century of specialized usage has not sufficed to eliminate the dependence of basic psychological categories on shared understandings in the general culture. Psychology may have developed certain theories *about* drive, *about* intelligence, *about* attitudes, and so on, but the network of categories that assigns a distinct reality to drive, to intelligence, to attitudes etc. has been adopted from the broader language community to which psychologists belong.

One consequence of this is a disjunction between the way scientific psychological discourse handles explicit theoretical concepts and taken for granted psychological categories. Conventionalism characterizes the deployment of explicit theoretical concepts. It is generally accepted that such

concepts are human inventions subject to continuous revision in the light of new research. However, when it comes to the domains that their theories are meant to explain psychologists are inclined to adopt a stance of unreflecting naturalism. They tend to proceed as though everyday psychological categories, like intelligence, emotion or learning, represented natural kinds, as though the distinctions expressed in such categories accurately reflected the *natural* divisions among psychological phenomena. Psychological discussions typically assume that there really is a distinct kind of entity out there that corresponds exactly to what we refer to as an attitude say, and it is naturally different in kind from other sorts of entities out there for which we have different category names, like motives or emotions.

The belief that scientific psychology adds to our knowledge of attitudes, drives, intelligence, etc., involves the implicit assumption that there is a fixed human nature whose natural divisions are reflected in this received network of categories. A sensation is not an emotion and an attitude is not a memory, though relationships between them are conceivable. While psychological theory addresses at length such topics as the structure of intelligence or the laws of motivation, it quietly assumes that the terms "intelligence" and "motivation" refer to distinct kinds that require explanation by means of separate sets of theoretical constructs. What is certain, however, is that psychological theory requires some pre-understanding of that which it is a theory of.

That pre-understanding has generally involved the unspoken conviction that psychological categories constitute historically invariant phenomena of nature, rather than historically determined social constructions. Therefore, the most appropriate way of investigating them would be by means of the experimental method of natural science rather than by means of historical analysis.

The traditional historiography of psychology reflected these commitments. It did not question the currently entrenched divisions among psychological domains, assuming that those divisions truly reflected the actual structure of a timeless human nature. Though categories like "intelligence", "personality" and "learning", may only have become *psychological* categories at the end of the 19th century earlier texts were reinterpreted as though they contained psychological theories about such topics. The timelessly true shape of such categories was assumed to be defined by present day usage (Danziger, 1990). Older work was appreciated only insofar as it "anticipated" what we now know to be true.

The older historiography considered only two kinds of factors in the development of a science, the discovery of empirical phenomena and the construction of explicit theories that would account for them. It tended to overlook the existence and historical change of categories that incorporated basic assumptions and provided the framework which gave a particular structure to both theories and phenomena.

One historian of science whose work ran counter to the prevailing trend was the French historian of biology, Georges Canguilhem. Among the topics whose history Canguilhem (1955, 1979, 1989) investigated was that of the reflex, biological regulation and normality. These are clearly not theories, as that term is ordinarily used. One can have theories *about* reflexes, about biological regulation, about normality, but these notions themselves are not theories. Nor are they phenomena. They are categories that provide a framework for identifying phenomena, giving them a particular

meaning. Such frameworks are historical constructions, and it is the job of the historian of science to trace their development.

The topics whose historicity Canguilhem investigated were biological categories. In due course, some of these biological categories provided the basis for current psychological categories. Examples of such categories are those of stimulation, intelligence, behaviour, and learning. These provide a framework for describing and identifying psychological phenomenona in a certain way. The possibility of describing phenomena in terms of such a framework did not always exist because these categories only became part of the history of psychology relatively recently.

In a recently published book (Danziger, 1997), I traced historical changes in the meaning and use of such biologically derived categories, as well as several other common categories of psychological discourse, including personality, motivation, emotion and attitude. In each case I explored the historical context in which modern psychological categories emerged and the way in which they gradually acquired their current meaning.

When one conducts such an analysis it soon becomes apparent that psychological categories were always relevant to the lives of those who used them, whether they were ordinary people or experts. Changes in these lives were accompanied by changes in psychological categories. Although, in the light of their historicity, it is difficult to say that these categories represent *natural* kinds, what one can say is that they represent *relevant* kinds. They are relevant to the people who use them, relevant to their concerns, their interrelationships with each other, their possibilities of action. There are factors in their lives which lead them to make and to emphasize certain distinctions and to ignore any number of others. That is reflected in historical changes in psychological categories.

Nevertheless, psychologists have always tended to think of the categories they employed as "natural kinds", groups of naturally occurring phenomena that inherently resemble each other and differ crucially from other phenomena. Psychological categories were assumed to represent natural divisions among objective features of the world that existed independently of the efforts of psychologists.

However, there are good reasons for rejecting natural kinds as an appropriate conceptual basis for psychology. Natural objects, as defined by natural kinds, are indifferent to the descriptions applied to them. If we change our identification of a chemical compound as a result of advances in techniques of analysis, this changes our knowledge of the compound but the compound itself remains the same compound it always was. But psychological objects behave in a very different manner. A person who learns not to think of his or her actions as greedy or avaricious but as motivated by a need for achievement or self-realization has changed as a person. Students who learn to classify things they see under a microscope no longer have the same perceptual experience they had during their initial encounter with microscopic preparations. The sorts of things that psychology takes as its objects, people's actions, experiences and dispositions, are not independent of their categorization.

This is hardly surprising because the individuals who are the carriers of psychological objects are able to represent these objects to themselves in a self-referential fashion. Radical behaviourists believe that such representations have a purely epiphenomenal status, but more generally it is

believed that their existence introduces a profound distinction between psychological objects and natural objects that have no capacity for self-reference. The manner of their articulation in language becomes a constituent part of psychological objects so that their identity changes with changes in psychological language (Taylor, 1985).

Another reason why psychological objects are not independent of their categorization is that they are intelligible only by virtue of their display within a discursive context. Whatever forms they assume are due to their embeddedness in particular discursive practices (Semin & Gergen, 1990). The conception of psychological entities as natural objects is often grounded in a naive belief in the existence of a private world of psychological essences. However, distinctions that constitute emotions as emotions, motives as motives, cognitions as cognitions, and so on, do not exist in some sealed private box *before* they are so labelled in public. Identifying experiences, actions and dispositions is not like sticking labels on fully formed specimens in a museum. Psychological objects assume their identity in the course of discursive interaction among individuals.

Distinguishing among kinds of actions and kinds of people is part of human interaction everywhere. Psychology attempts to offer causal explanations of the domains created by these distinctions, using empirical investigation and theoretical hypotheses. The extent to which these attempts act back on the distinctions themselves depends on the authority commanded by psychological expertise in a particular culture. It also depends on the way in which psychological work relates to existing needs and interests. If the work is truly innovative and threatens established preconceptions and relationships it will meet a great deal of resistance. But the great bulk of psychological work has never been in any danger of this fate. Both in its inspiration and in its effects it has been profoundly conservative. Except on a very superficial level, it has shared the prevailing preconceptions of its culture and arranged its investigations in such a way that no knowledge with revolutionary implications could possibly emerge from them. In assessing the effect of psychological science on psychological kinds it is easy to overlook the biggest effect of all, namely, the reinforcement of existing culturally embedded preconceptions and distinctions.

This cultural embeddedness accounts for the taken for granted quality that so many psychological categories possess. It is a quality that makes them appear "natural" to the members of a particular speech community sharing a certain tradition of language usage. However, this sense of "natural" is not to be confused with the concept of natural kinds that has featured in the present discussion. Natural kinds have nothing to do with culture, whereas the natural appearing kinds of psychology have everything to do with it. We need a term for the latter that will recognize this distinction. The term "human kind", introduced by Ian Hacking (1992), is useful here. Hacking's main interest is in categories that define kinds of people, like homosexual or multiple personality disorder, but, in principle, kinds of human activity are covered too. The difference between natural and human kinds rests on the distinctions I have already mentioned, that is, whether the kind is self-referring and whether it is intrinsically part of social practice.

One consequence of the distinguishing features of human kinds is that their relationship to the reality they refer to is different from that of natural kinds. The latter refer to something that would be the case, whether any particular act of reference had occurred or not. Human kinds, on the other hand, affect that which they refer to. Historically, "the category and the people in it emerged hand in hand" (Hacking, 1986: 229). The way humans categorize themselves and their activities is not

independent of their actual conduct, because, as we have noted, such categorization is part of human conduct and therefore not a matter of indifference to the people concerned. This leads to what Hacking (1994) has described as "looping effects", the reaction of people to the classes to which they and their activities are consigned. This reaction may range all the way from passive acceptance to militant refusal. In other words, the meaning of human kinds develops and changes in the course of interactions among those affected. (This interaction has sometimes been described as a process of "negotiation", though that implies a more deliberate and more articulate process than is often the case). Human kinds of the sort I have analysed (Danziger, 1997) are not natural kinds, but neither are they mere legends. They do refer to features that are real. But it is a reality in which they are themselves heavily implicated, a reality of which they are a part.

The reality to which human kinds refer is a cultural reality, and that in several senses: First, because the phenomena depicted are ones which exist only in some cultural context; second, because these phenomena commonly depend on a certain social technology for their visibility and their production; third, - and this is the aspect that has been the focus here - because the categories used in their representation are culturally grounded. Psychology has acquired its categories from the culture that gave rise to it and in which it remains embedded.

Consequently, all psychological categories have been historically variable constructions. To gain an understanding of the categories in common use at the moment, we need to see them in historical perspective. When we go back to the origin of these categories we usually find that what later became hidden and taken for granted is still out in the open and questionable. We also discover some of the reasons why a new category was introduced and by whom. Because psychological categories are heavy with historically formed pre-understanding one hopes that a better understanding of their historicity will promote their more insightful deployment in everyday practice.

NOTE

Paper presented at the International Society for Theoretical Psychology meeting in Berlin, April 1997. Originally appeared in W. Maiers et al (Eds.), *Challenges to Theoretical Psychology*. Toronto: Captus Press, 1999, pp. 24-32.

REFERENCES

Canguilhem, G. (1955) *La formation du concept de réflexe aux 17e et 18e siècles*. Paris: Presses Universitaire de France.

Canguilhem, G. (1979) *Wissenschaftsgeschichte und Epistemologie*. Frankfurt: Suhrkamp.

Canguilhem, G. (1988) *Ideology and Rationality in the History of the Life Sciences*. Cambridge, MA: MIT Press.

Danziger, K. (1990) `Generative metaphor and the history of psychological discourse', in D.E. Leary (ed.), *Metaphors in the History of Psychology*. New York: Cambridge University Press.

Danziger, K. (1997) *Naming the Mind: How Psychology Found its Language.* London: Sage.

Hacking, I. (1986) `Making up People', in T.C. Heller, M. Sosna, and D.E. Wellerby (eds.) *Reconstructing Individualism: Autonomy, Individuality, and the Self in Western Thought*. Stanford, CA: Stanford University Press. pp. 222-236.

Hacking, I. (1992) `World-making by kind-making: Child abuse for example', in M. Douglas and D. Hull (eds.) *How Classification Works: Nelson Goodman among the Social Sciences*. Edinburgh: Edinburgh University Press. pp. 180-238.

Hacking, I. (1994) `The looping effects of human kinds', in D. Sperber, D. Premack, and A.J. Premack (eds.) *Causal Cognition: A Multi-Disciplinary Approach*. Oxford: Clarendon Press. pp. 351-383.

Semin, G.R. & Gergen, K.J. (eds.) (1990) *Everyday Understanding: Social and Scientific Implications*. London: Sage.

Taylor, C. (1985) *Human Agency and Language*. Cambridge: Cambridge University Press.