On the quest for disciplinary unity and the virtues of open concepts

Wagoner, Brady

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*Brady Wagoner**

Abstract

One key strategy for unifying the discipline of psychology is to develop a meta-theoretical framework through the advancement of core concepts. Rather than having these be strictly defined from the outset, this commentary argues for the utility of open-ended concepts for scientific advancement. This is illustrated with a brief historical review and current status of *Prägnanz*, *assimiliation-accommodation, schema, liminality* and *mediation*, which also show the difficulties on finding core concepts for psychology as a whole. Open-ended concepts may be useful here in that they can help to bring together converging lines of research from different approaches within psychology. Finally, a case is made for *mediation* as a core concept that is currently converging with notions of extended and distributed cognition.

Keywords: core concepts, disciplinary unity, mediation, social representations, schema.

> "*It is the dilemma of psychology*
> *to deal as a natural science with an*
> *object that creates history*"
> (Boesch, 1971, p. 9)

* Aalborg University: Rendsburggade 14, 4-2019 9000 Aalborg Denmark. Oslo New University College, Lovisenberggata 13, 0456 Oslo, Norway. wagoner @ikp.aau.dk

Psychology is an awkward science situated between the natural and social sciences. On the one hand, it has to be consistent with the findings of biology and neurology, while on the other, its phenomenon overlaps to a high degree with other social and cultural sciences. When psychology emerged as a discipline in the 19th century, debates raged over the proper object and methods for psychology. Toward the end of the century, Wundt (1890/2009) attempted a synthesis of studying phenomena from the bottom up (from elements) and top-down (from wholes). In his *Outlines*, the discipline was to be divided between the study of lower (basic physiological processes) and higher (social-cultural) psychological processes, each with its own objects (i.e., consciousness and cultural patterns) and methods (i.e., experiments, and cultural comparison and interpretation). Ultimately, he failed to provide a satisfactory meeting point for the two branches, no one followed his unification of the discipline and others repudiated the limitations he placed on the natural science model (Danziger, 1990).

In contrast to Wundt's strategy of a philosophically leaning discipline, Salvatore and colleagues (2022) emphasize the need for not only general, abstract and well-defined scientific concepts but also grounding of these within different contexts of professional practice. In other words, they strive for unity in diversity of psychological research and intervention, accomplished through the building of a theoretical framework that touches down in the many contexts in which humans operate, thrive and suffer. They suggest for one the construction of hierarchies of explanatory principles with a meta-theorical framework at the top which is abstract and general. This in turn embeds different increasingly more concrete and specific theoretical models, until one reaches specific contexts of intervention. Core concepts sit high on the hierarchy and ground mid and short range theories. In this context, they mention efforts to reconstruct psychoanalytic theory, such as Riolo and colleagues' (2021) proposal to identify basic axioms, general theory, observational theories and operational theories.

In what follows, I would like to nuance the notion of unambiguously defined concepts, which is one (of three) strategies Salvatore and colleagues suggest in order to unify the discipline. While recognizing the value of the striving for more clearly defined concepts, I will argue that open, suggestive and future-oriented concepts also have an important role to play in scientific advancement. It is not only the

accumulation of "errors" in a theoretical approach that leads to scientific breakthroughs, as Thomas Kuhn (1962) famously argued, but also a surplus of new truths about a phenomenon that widens our view of it and an adequate theory needs to take account of (Moscovici, 1966). Moscovici (1976/2008) himself proposed "social representations" as an open-ended concept that would provide a framework for a broad study of culture, communication and mentalities in contemporary society, and as a counterpoint to more limited cognitive and individualistic theories in psychology. In this way, it can be advantageous to start with wide but diffuse concepts that nonetheless open-up the discipline to a broader view of the human condition.

Salvatore and colleagues (2022) give a number of examples of abstract, as opposed to empirically derived, concepts that are core concepts within their respective approaches. They mention *Prägnanz* in Gestalt theory (tendency toward "good form"), *assimilation-accommodation* in Piaget, *mediation* in Vygotsky, *schema* in Neisser, and *liminality* in Stenner. Two other important features of these core concepts are: First, they are removed from commonsense usage (unlike mind, consciousness, memory and intelligence). This allows them to operate more directly within a meta-theoretical framework with less mixing with everyday associations, but at the same time further removes them from applied contexts. Second, these concepts are inherently open-ended rather than clearly defined, closed concepts. They are open-ended in the sense of 1) not being strictly defined from the outset but sensitizing us to new truths, 2) highlighting the complexity of phenomenon not yet clearly understood, and as such 3) setting a programme for research into the future. This can be compared to Polanyi's (1962) idea that a new scientific theory is accompanied by a new vision of reality that is both more and less than knowledge: less because they are still a guess and more because they anticipate things yet unknown and at present inconceivable.

By briefly reviewing the history and status of these core concepts we can highlight the importance of open-ended concepts for theoretical advance and the unification of knowledge. At the same time, it will highlight some limitations and the improbability of using them and others to unify the discipline. Instead, I will argue that different research approaches should aim to build and articulate more general theoretical frameworks through open core concepts, which may converge

with other attempts (as has recently happened between socio-cultural psychology and new trends in cognitive psychology, as I will discuss below).

The notion of *Prägnanz* or the idea that perceptual forms would tend towards regularity, symmetry and simplicity, was actively and critically discussed, researched and applied to new areas, such as memory, in the 1940s and 1950s (Wagoner, 2017a). However, results were inconclusive (Riley, 1962) and the concept fell out of favour or at least was not actively researched. Part of the problem may have been that it did not easily translate beyond perceptual research (though notions like "closure" have been used to describe for example relationships, even in everyday language). The other issue was that the concept remained tightly linked to Gestalt theory and did not find a permanent home in other disciplinary approaches. This shows that concepts must be inherently extendable to other domains (as Salvatore *et al.* [2022] describe has happened to e.g. attachment theory).

The concept of schema has also had its ups and downs. It was advanced in a sketchy manner in the 1920s and 30s by figures such as Bartlett and Piaget, only to be temporarily abandoned and then picked up again in the late 1960s by the emerging subdiscipline of cognitive psychology, where it remains a central concept (Wagoner, 2017b). In its original form, it described how all human experience takes form through an organized setting or active developing pattern, built up over a person's lifetime. While its meaning remains somewhat ambiguous, it has been used in a vast variety of different contexts and is a good contender for a concept to unify research on such processes as perception, memory, the self, educational processes, and more. One problem with the way that it has been adopted, however, is that it has tended to be treated as a static knowledge structure in the head, which is a far cry from its origins as an embodied, dynamic, temporal and social concept (Wagoner, 2013). In this way it was detached from the original set of basic axioms and reattached to a new set, which radically changed the concept in the process. It continues to be widely used today but in a diversity of ways, varying according to the basic assumptions of the disciplinary approach in question.

The other concepts mentioned have been more consistently dynamic and processual in their basic assumptions and thus might offer more fruitful conceptual foundations moving forward. Assimilation and

accommodation was the core concept of Piaget's theory and remains central to conceptual efforts in psychology. Even Moscovici's (1984) theory of social representations (already mentioned above) uses concepts that parallel them – namely *anchoring* and *objectification* – but in a wider context than Piaget had done, who had focused mainly on children's cognitive development. Anchoring is used to explore how new scientific ideas are made sense of through pre-existing commonsense knowledge, while objectification highlights how this new knowledge is transformed into concrete images. Like Piaget, Moscovici explicitly aimed to develop a "genetic" approach (a basic axiom), focusing on the qualitative emergence of a phenomenon through time.

Liminality is also an inherently processual concept that thematizes individual experience within a societal nexus. It was first introduced by van Gennep's (1960) in his classic book *Rites of Passage* to explore the rituals that accompany the transitional state between social positions. It has a rich history in anthropology following Victor Turner's (1967) appropriation of the concept, but has only recently found its way into a branch of psychology (for a range of applications see Stenner, Greco & Motzkau, 2017; Wagoner and Zittoun, 2021). Although a core concept in anthropology, it is unlikely to gain that status in psychology given the different assumptions and questions of the two discipline and competing concepts found in both.

Finally, the notion of mediation has a distinguished pedigree in both philosophy and psychology. It was already an important feature of Wundt's (1890/2009) unification of the discipline in that all higher psychological processes were seen to be mediated by culture. As cultural products are variable across time and space, we should expect higher psychological processes to be so as well. The concept clearly works to bridge the individual and collective levels of analysis, showing how culture shapes mind and mind shapes culture. At the same time, the concept on its own does not specify how these operate nor its variable effects. That is precisely the task for further conceptual and empirical work – for example, research has explored what happens when so called "natural" and "cultural" lines of development intertwine in ontogeny (Vygotsky, 1987) and human evolution (Donald, 1991), mediation's "process structure" (Valsiner, 2001) and the use and effect of various forms of mediators in educational or clinical practice.

Thus, I would argue the concept of mediation is a good contender for a truly unifying core concept (recognizing that I am biased in this assessment, given my own position as a sociocultural psychologist). First, it has a solid history of discussions in psychology and philosophy to build on. Second, it is removed from commonsense usage and can thus be more easily situated purely in relation to other concepts within a theoretical framework. Third, it aims to explore the intersection between biology and culture in human functioning, thus bringing together the two sides of the discipline. Immediate biological reactions are ruptured through the mediation of culture, which creates distance between person and environment, and opens up a space possibility. Fourth, it functions as a connecting link between individuals and society. Mediators are social in origin, embedded in the history of a group. When individuals internalize them, psyches are transformed but in different ways for different people. This is because they enter into unique psychological systems. The analytic focus thus centers on this dialectical tension, exploring how culture and minds mutually constitution each other (Shweder, 1991). Fifth, it is inherently processual in its basic assumptions: mediators are always media*ting* some activity. We need to explore the full arc of this movement, including its history, contextual trigger, unfolding, outcome and generalization to new situations (see e.g., Valsiner, 2012). Sixth, while being abstract, it can readily be applied to different practical fields, and is already currently popular within educational, work and even therapy research. Seventh, it is an open-ended concept that can and has been developed in different directions and in a variety of contexts. Eighth, there is a convergence of conceptualization, interests and research findings between sociocultural psychology's use of mediation and cognitive psychology's growing concern with extended and distributed cognition (and more recently "4E cognition" – see e.g., Newen, De Bruin & Gallagher, 2020). Identifying separate lines of research that seem to be converging is a future oriented task, which is likely to be more successful and enduring than simply stating that something should be a core concept and defined in a certain strict way. Ultimately, concepts need to be shown to be useful in making progress on specific research concerns as well as the more general concern of constructing a unified discipline that can address the complexities of being human in ever-changing world.

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