Beyond the Brain: An Agentive Activity Perspective on Mind, Development, and Learning

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Reviewed by Steven McCafferty

The first chapter of the book, the Introduction, sets out the goals of this Cultural-Historical Activity Theory (CHAT)-inspired volume, particularly the theme of agency in human activity as related to learning and development. Arieviditch states his misgivings concerning the embrace by mainstream psychology and education of ‘brainism’, the idea that study of the brain will bring definitive knowledge of the mind, that they are one in the same. He argues that this form of reductionism simply reinforces the illusion that psychology is in the head, the Cartesian mind-body dualism that continues to haunt Western scientific approaches to the field. This view culminated in the late 1960s in what now seems to be a distinctively naïve metaphor: mind/brain is a computer. However, the idea that thinking remains ‘information processing’, as the author points out, persists in the current iteration of Descartes’ fallacy – we are our brain. These are powerful focal points for examining the interface between sociocultural and mainstream perspectives on psychology and the applications of each to learning/teaching and development, a task taken up in the remaining six chapters of the book.

The second chapter delves deeply into why the mind is not the brain, the author arguing that the reduction of people to a biological, physical substrate contradicts the basic fact that ‘Brains do not think, perceive, believe, and do not make decisions’, that it is ‘persons with brains’ that do all of this (p. 11). In further support of this non-dualistic approach, the connection of

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personhood to environment is pursued as well, and although Arieivitch does not mention Vygotsky's unit of consciousness, *perezhivanie* (how a person experiences an environment), his focus on agency in meaningful activity, including emotional development, is a primary strength of the volume as a whole. In further establishing why the brain is not the mind, the author relies on some of the neuroscience literature as well, for instance, citing research which reports that although the faculty of vision produces information, how that information is construed is dependent on the person who experiences it, that vision is ultimately interpretive. Phenomenal experience in general and its relationship to the brain, the 'hard problem' of consciousness, is a conundrum for neuroscience, the answer quite possibly lying 'beyond the brain'.

The third chapter focuses on the independence of thought-out activity from 'fight or flight' activity (unconscious responses not associated with agency). Arieivitch focuses on how without thought-out activity people would be subject to the vicissitudes of unstable environments, unable to incorporate previous knowledge and experience, instead trapped by habit, for example. This aspect of development goes directly to Vygotsky's work on the development of self-awareness, self-regulation, self-efficacy and other psychological functions at this level, which become necessary if people are to become active agents in social-cultural worlds. The author goes on to point out, moreover, that it is the combining of biology and culture that is key, the fact that the two, 'co-create one another' (p. 41). Mind-body dualism is also addressed in the chapter, Arieivitch referring to the work of phenomenologists who have focused on 'the lived body' as central to intentional agency in transforming cultures and the world.

Chapter 4 concentrates on cultural mediation, signs in particular, and the central role they play in '*the guiding activity of the other*' (p. 56), that is, mediation through the agency of others, particularly salient during childhood. This of course includes psychological tools that are distributed (including artifacts) and available as part of the larger cultural environment. The author also, importantly, points to the misunderstanding of language as labeling and not meaning-making, that the environment is not merely an eco-social landscape to be acquired, but made sense of through experience with others. Arieivitch further notes that words are a social response to the environment and not, as others have suggested (e.g., Daniel Dennett), tools for 'symbolic manipulation' by the brain. As such, the author contends that signs are integral to the social distribution of consciousness through intersubjectivity and joint activity; moreover, noting that we 'act out' meaning in/on the environment through joint actions or co-activity, and that meaning derives from such actions as well, particularly emergent meaning.

In Chapter 5 the author emphasizes the mistakes of mentalism that have engulfed the West for decades through minimizing the importance of social activity, concentrating instead on isolated individual heads under the assumption that therein lie 'preexisting internal "space"' where 'ready-made mental processes' await input (p. 79). Instead, the author argues for Vygotsky's concept of internalization as 'the main avenue of human mental development' (p. 53). He also points out that internalization has been misunderstood even by researchers who take a sociocultural view, through ascribing mentalist or information processing interpretations to the construct, ultimately calling, in a number of instances, for dropping the concept all together.

However, as pointed out by Arieivitch, Vygotsky never meant to isolate internalization from the world, quite the opposite, it is the connection to the external world that drove his theorizing about internalization. In explaining internalization Arieivitch utilizes Galperin's step-wise procedure to address how, when engaged in problem-solving activity, it is agentivity that is critical to emergent meaning-making, that is, how a person responds to her/his environment – not mysterious processes in the head. Also in this regard, the author cites Dewey's criticism of traditional explanations of learning, which depend on a 'spectator theory of knowledge', or the idea that learning can be reduced to 'a subject separate from the world reflecting on it' (p. 83). This form of contemplation is tied to the epistemological framework of Descartes, who rejected the materiality of the body as having nothing to do with thought (on this basis he also concluded that 'animals' have no feeling, that they are just mechanisms).

In the next chapter (6), the author addresses the process of formal education, noting the dualism of having two separate designations, 'teaching' and 'learning', citing Vygotsky's use of the Russian term *obuchenie*, which argues for the interdependence of the two as collaborative, agentive activity. This approach welcomes the experiential, qualitative dimension of education which undergirds many of the interactive practices of the classroom, Arieivitch citing 'scaffolding, ... modeling, contingency managing, feedback, questions, and cognitive structuring' (pp. 118–119). The author also explicates larger, broader frames of *obuchenie*, such as Galperin's Systemic-Empirical Learning and Systemic-Theoretical Learning, the latter of which is conceptual-theoretical in orientation, that is, constituted by systemic activity as opposed to more traditional educational approaches that emphasize the concrete-empirical pursuit of knowledge. The author criticizes educational practices which underscore age-related, mental, and other supposedly intra-personal 'difficulties' as determined by outcome-based evaluations, which assume that the locus of control lies 'in the head' of the individual. Developmental Teaching is suggested as a remedy in this regard as a systemic approach which advocates that teachers

develop their own pedagogical thinking, avoiding preconceived notions of what students can or cannot learn as based on outcomes, instead suggesting that they pay attention to the activity of thinking/doing as situated in both real and imagined environments. The author also underlines motivation, contending that the sociocultural approaches cited above are inherently more interesting to students through promoting meaningful discovery and connections, beyond the piecing together of information.

In Chapter 7, the concluding chapter of the book, Arieivitch reiterates his main points, but adds to the discussion of materialism, emphasizing that ‘psychological phenomena are just *abstractions* derived by our thinking from the totality of the agent’s external activity, that is, from the broader real processes of the agent’s interaction with the environment’ (p. 184, italics original), and that ‘the active embodied agent is the real unity of the material and the “mental”’ (p. 149). One can only hope that educational policy makers will take note of the value of this perspective, despite long-standing traditions.

This is an exciting volume, which offers strong argumentation for the role of agency in activity as leading to development and as applied to education, especially teaching/learning. I believe that a discussion of *perezhivanie* would have added to the overall treatment of activity and agency, if only by enhancing what is already in the book. However, had the extant material from Vygotsky on consciousness as a whole been more readily available (this work and its explication has been trickling out since around the 2010s), I believe that some aspects of the discussion might have changed, especially around the subject of language and consciousness. Overall, the book is an enlightening contribution on many levels of sociocultural concern, particularly illuminating and consolidating the importance of agency in activity as viewed from a CHAT perspective.