The Body in the Mind: The Bodily Basis of Meaning, Imagination and Reason by Mark Johnson, Chicago: University of Chicago Press, 1987

Reviewed by
Barbara Etches
Simon Fraser University

To assert that the structure and conclusions of an argument are reasonable is to suggest that the argument makes sense. One might declare the logic clear and the deductions sound. One may see the point of the argument and agree with the view that the author holds. Yet, paradoxically, while our physical senses are ubiquitously referred to in the assessment of rational arguments, rationality itself has traditionally been viewed by philosophers in the Western tradition as transcending the structures of bodily experience. Johnson's purpose in his book is to describe ways in which "meaning and rationality are tied to bodily experience, as it is imaginatively structured," or to "explore the ways in which the body is in the mind" (p. xvi).

Johnson terms *objectivist* that philosophical orientation that posits a rationally structured reality where objects, properties, and relationships exist independently of human experience, understanding, and belief. In this view, language expresses concepts that directly correspond or map onto objective reality, and correct or logical reasoning offers the means by which these concepts can be interrelated in the form of propositions, thus enabling description and comprehension of a world that exists externally to human experience. In objectivist accounts, writes Johnson, "reason is regarded as master of its own autonomous realm, subject only to its own structures, and providing a universally valid basis for rational analysis and criticism" (p. xxi).

Initially, Johnson challenges the assumptions of the objectivist view by identifying instances where embodied and imaginative understanding is needed to account for both meaning and reasoning. In these terms he discusses the phenomena of categorization, framing of concepts, metaphor, polysemy, historical semantic change, non-Western conceptual systems, and the growth of scientific knowledge.

Proposing in this way an alternative account of meaning and reason, Johnson rejects the traditional dichotomy of the cognitive faculties as formal and intellectual on the one hand and the material, perceptual, and sensible on the other. Such a separation distinguishes between operations of the mind (conceptualization and analysis) and processes aligned with the body (perception, imagination, and feeling of both the tactile and emotional sort). This kind of metaphysical and epistemological split is untenable, Johnson maintains. While imagination cannot be, according to be objectivist definition, characterized as propositional, algorithmic, or disembodied, it is, Johnson argues, nevertheless an indispensable structuring activity by which we make sense of our experience in the world and "upon which conceptualization and propositional judgment depend" (p. 170).

While accepting Kant's view of the function of imagination as "organizing mental representations (especially images and precepts) into meaningful unities that we can comprehend," Johnson rejects Kant's placement of imagination as stationed somewhere between sensation and conceptualization. Because Kant assumed a dichotomy between physical reality and the mental realm, he considered imagination much as a midpoint between shifting gears; one moves from sensation, through imagination, to pure thought. As have many other contemporary philosophers, Johnson denies the strict separation between matter and form.

Regarding perception, imagination and conceptualization as "poles on a continuum," Johnson allows for an account of imagination as central to human meaning-making and rationality (p. 167). This assertion of the critical function of imagination as not merely attendant on but constitutive of understanding is supported by a detailed examination of ways in which two basic structures of imagination, image schemata, and their metaphorical extensions, shape our terms of reference for constructing a knowledge of the world.

Johnson defines image schema as "a dynamic pattern that functions somewhat like the abstract structure of an image, and thereby connects up a vast range of different experiences that manifest this same recurring structure" (p. 2). These patterns emerge from our bodily experiences, preconceptually and nonpropositionally, yet provide coherent, unified gestalt structures that enable us to organize a wide range of human experiences and that may also provide a basis for inferential reasoning. Johnson lists 27 sorts of image schemata that include such structures as those based on the experience of containment,

balance, compulsion, enablement, and attraction. The list, he admits, could easily be extended, but his point is that "these image schemata are pervasive, well-defined, and full of sufficient internal structure to constrain our understanding and reasoning." The structure of the image schemata of containment, for example, entails the physical experience of protection, restriction, resistance, fixity of position, or transitivity of containment. But the image schema is often metaphorically extended beyond the physical or spatial, to include instances of nonphysical experience, as in "leaving out the minor details of the story," or "backing out of an argument." The containment schemata may also constrain patterns of reasoning, as in "that assumption will lead you astray" or "you can't move to that conclusion from where you are now." An earlier book by Johnson and Lakoff, *Metaphors We Live By*, explored in detail the way in which metaphorical structures of understanding are pervasively employed to organize human experience. *The Body in the Mind*, then, builds significantly on that work.

A crucial point of Johnson's argument is that image schemata are neither rich images nor closed, finitary propositional representations against which certain experiences correspond in a fixed way and can therefore be described and evaluated. On the contrary, Johnson maintains, image schemata are themselves generated by certain recurring patterns of experience. Metaphorical extension and elaboration of those schemata provide paradigms that give meaning and structure to both actions and thoughts. These structures of understanding emerge from "the way we experience our world as a comprehensible reality ... such understanding, therefore involves our whole being—our bodily capacities and skills, our values, our moods and attitudes, our entire cultural tradition, the way in which we are bound up with a linguistic community, our aesthetic sensibilities and so forth" (p. 102).

Johnson's thesis that image schemata and metaphors constitute structures of embodied understanding has implications for pedagogy that deserve consideration. His work may be productively allied with that of educators who have challenged the primacy of the autonomous, authoritative text in the literate practice of our schools and with recent work in the arts and cognition that calls attention to the need to examine underlying structures of understanding that may inform all the various modes of symbolic expression.

As Johnson notes, the embodied nature of understanding "bears directly on the question of what is to count as knowledge and objectivity." Johnson argues persuasively that understanding is

our way of *being in* or *having* a world; understanding is "a historically and culturally embedded, humanly embodied, imaginatively structured event." Knowledge, according to this view, is *human* knowledge—subjective to the degree that it is derived from our experience of being in the world but *objective* in the sense that our understanding may be shared by others. The contention that knowledge is relative to the mediating structures of embodied understanding provides a basis from which to critically examine the almost exclusive reliance, in education, on the school text as the repository of significant, authoritative, and objective knowledge.

Following Johnson's line of argument, the assertion that the expository text is authoritative because it is impersonal and context-free is rendered problematic. The text cannot possibly be considered autonomous or "travel without the crutch of context" (Willinsky, 1987, p. 109). Nor can a sentence be a proposition that literally or directly represents an external, rationally structured reality. If we accept Johnson's argument, not only is our understanding of reality experiential, but the metaphorical projections that pervade our language are intrinsically subjective and context-dependent.

Johnson does not directly address the issue of metaphorical extensions as cultural codes that not only need to be explored and identified but, perhaps, need also to be questioned and indeed criticized. It is important to note, then, that his theory of meaning and reasoning considers image schemata and metaphor as structures of imagination and understanding that are both embodied and *culturally embedded* This means that we can expect a certain cohesion and, more problematically, a certain possibly restrictive or distorting conventionality of metaphorical elaboration to the extent that metaphors are ties to historical and cultural contexts. A prevailing metaphor such as *theories are buildings* allows us to examine the foundations, supports, and construction of arguments, but it makes incomprehensible the expression *Don't iodize your theory*. And while metaphor can be the means by which we "project structures across categories to establish new connections and organizations of meaning" (Johnson, p. 171), a rigidity of metaphor may also constrain or delimit understanding. Johnson provides the example of the work of stress researcher Hans Seyles who found that the metaphor of the body as a machine precluded perception and understanding of the functions of the body that could be realized if the metaphor of the body as homeostatic organism was employed. Yet one wishes that Johnson had elaborated on the function of those metaphors that are culturally embedded and that may constrain not only scientific enquiry but which

also may constrain our understanding of such social issues as race, class, and gender. In any genuinely egalitarian/emancipatory pedagogy, attention to the ways knowledge is constructed by such shifts in paradigms or terms of reference must initiate not only critical and creative thinking and a more subjective engagement with the text, but also a more critical questioning of conventionalized orientations to knowledge.

The theory of meaning and rationality that Johnson develops is in many important ways consistent with those put forth by art theorists in recent decades who have insisted that understanding in the arts also functions through operations of perceptual experience, imagination, and cognition. These writers (Broudy, Engel, Gross, Perkins, and others) have insisted that the arts constitute part of a larger domain of knowledge, that they in fact provide a unique means by which the mental structure of schemata can be given form or grasped. Engel has maintained that the almost exclusive focus on print reading ignores the "inexorable linkages" between the deep structures of language, music, and uses of both verbal and visual metaphor (Engel, 1978). The visual image, the dance, and the musical composition, like the linguistic metaphor, constitute imaginative structures of understanding. Indeed, since the arts and imaginative literature frequently operate to examine and critique existing paradigms and codes of representations and to offer new frames of reference, one could suggest that the study of these forms may be particularly conducive to fostering critical and creative thought. Johnson's work provides strong theoretical support to educators critical of current pedagogical practices that presume that objective knowledge exists independently of the embodied, imaginative, culturally and historically situated individual. This conception of knowledge as something external to human beings allows texts to be regarded as autonomous and the written word itself as constituting knowledge. Johnson reminds us that texts are constituted of paper and ink. Knowledge is always a matter of human understanding; it is always contingent on the sense we make of being in the world through the experiences of moving, touching, feeling, speaking, hearing, and seeing. As Johnson convincingly argues, it is impossible to account for common sense without this acknowledgment of sensibility.

References

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