

**Mark Johnson.** *Embodied Mind, Meaning, and Reason: How Our Bodies Give Rise to Understanding.* University of Chicago Press 2017. 240 pp. \$82.50 USD (Hardcover ISBN 9780226500119); \$27.50 USD (Paperback ISBN 9780226500256).

We can attempt to avoid the mind-body problem by saying that the mind and body are the same thing known in two different ways. But that still leaves the problem that at one time there was no consciousness in the world and that now there is consciousness, and reasoning. How did reasoning arise? Mark Johnson has devoted most of his career in philosophy to attempting to make inroads into this problem. His previous publications include *The Body in Mind* (University of Chicago Press 1987) and, in collaboration with George Lakoff, *The Metaphors We Live By* (University of Chicago Press 1980) and *Philosophy in the Flesh* (Basic Books 1999).

Johnson believes that the advent of reasoning cannot be understood unless we pay attention to the whole of the body in our understanding of the world. More specifically, he argues that ‘our bodily experience ... provides a pre-reflective fund of meaning that makes it possible for us to think abstractly and to carry out all forms of meaningful human symbolic interaction, expression and communication’ (99). This is the central message of this collection of essays.

Johnson argues that there are recurring patterns of sensory experience that arise from the ways in which our bodies interact with the environment. For example, we project *verticality* onto space, physical objects and other people relative to our own embodiment. In his vocabulary, we have an image schema of ‘verticality’. He borrows the vocabulary of ‘schemas’ from Kant who talked of a schema as a rule of the imagination that bridges what would otherwise be a gap between the formal and material aspects of cognition.

Johnson rejects Kant’s metaphysics, partly because he objects to what he sees as Kant’s reliance upon the existence of pure (non-empirical) autonomous reason, but he concedes that ‘Kant correctly recognized the schematizing, form-giving function of human imagination’ (125-6). Distinguishing his position from Kant’s, he argues that:

Imaginative activity occurs ... in the ongoing flow of our everyday experience that is neither merely mental nor merely bodily, neither exclusively cognitive nor emotional, and neither thought alone nor feeling alone. All these dimensions are inextricably tied together in the perceptual and motor patterns of organism-environment interaction, which provide the basis for our patterns of understanding and thought. What we identify as the ‘mental’ and then contrast with the ‘bodily’ dimensions of our experience are really just abstractions from the embodied patterns and activities that make up that experience. What we call ‘mind’ and ‘body’ are not separate things. Rather, we use these terms to make sense of various aspects of the flow of our experience. Image schemas are some of the basic patterns of that flow. (126)

The various schemas discussed by Johnson include the previously mentioned verticality schema, whereby we understand the experience of standing up and falling down etc.; the ‘scalar intensity’ schema which originates in the fact that we must be ‘exquisitely attuned to changes in degree, intensity and quality of feelings’ (129); and the ‘center-periphery’ schema which originates in the fact that ‘[o]ur perceptual fields have focal areas that fade off into a vague horizon of possible experiences that are not currently at the centre of our conscious awareness, but are connected to what we are currently focusing on, and remain available for subsequent focusing on’ (128). Johnson’s list

of schemas is not intended to be comprehensive and he notes that the schemas can combine to produce other schemas. But the schemas in which he is most interested are the ‘container’ schema and the ‘source-path-goal’ schema.

He argues that the container schema arises from our repeated encounters with containers of all shapes and sizes. From this, we naturally learn ‘the logic of physical containment’ (53). Thus, for instance:

Hundreds of times each day we typically interact with containers (boxes, cups, rooms, our bodies, vehicles) and thereby automatically acquire the spatial logic of containers. If my keys are in my hand, my hand is in my pocket, my pocket is in my pants, and my pants are in my office, then my keys are in my office. This is a corporeal logic that I acquire without conscious reflection, just by interacting repeatedly with my environment (an environment populated by many types of containers that stand in various relations). (53)

He informs us that the source-path-goal schema—the other schema in which he is most interested and to which he attaches great importance as a fundamental pattern—consists of the following minimal structure:

1. a source point, from which the path begins
2. a path leading in some direction
3. a goal; that is, an endpoint for the path. (101)

He argues that we repeatedly encounter such paths leading to as yet unrealized goals.

Johnson’s discussion of bodily schemas, in particular the container schema and the source-path-goal, is of great interest with regard to the development of reasoning. (Interestingly, independently from Johnson, the archaeologist Clive Gamble pursued similar lines of thought arguing that our bodies, consisting of both containers and instruments, gave rise to metaphorical thinking that in turn enabled the development of such things as bowls and knives. See his *Origins and Revolutions: Human Identity in Earliest Prehistory* (Cambridge University Press 2007).)

Johnson’s discussion opens up a number of further avenues of inquiry. But he fails to pursue some of the most obvious. It is for example a little strange that in discussing these schemas he does not mention our hands—hands are not mentioned anywhere in the book.

He might have mentioned, as an important inspiration for the container schema, the cupping of our hands to drink. Some primates drink with one hand but I believe (tentatively) that we may be the only species to drink with both hands held cupped together. (We are certainly able to drink with our hands more efficiently than other primates, in that with our cupped hands held against our chins we are able to drink a significant quantity of water without losing sight of our surroundings.)

He might also have mentioned, as an important inspiration or illustration of the source-path-goal schema, the pointed finger. Again, this seems to be a fairly obvious move. More abstractly, ‘deduction’ could be brought into the discussion of the container schema and ‘induction’ could be brought into the discussion of the source-path-goal schema.

These are of course only suggestions, and only briefly outlined, as to the direction in which Johnson’s work might be developed—a direction in which the empirical investigations of evolutionary anthropologists might play a role. Johnson, however, is more interested in exploring what he sees as the metaphysical and pragmatist implications of his work. Here he is less convincing. He argues, for example, that ‘body-based meaning ... serves as a basis for, and constraint on, what