

## Notes on Stepping In

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My being asked by Gerd Müller, the president of the KLI (Konrad Lorenz Institute for Evolution and Cognition Research), to assume the editorship of *Biological Theory* at the end of last year was both an honor and an occasion of sorrow. Our friend and colleague, Werner Callebaut, the journal's founding editor-in-chief (under the KLI's sponsorship), had died unexpectedly a few weeks before, and respect for Werner's efforts and for the field of philosophy of biology in which he had played key intellectual and organizational roles, required that *Biological Theory* go forward without interruption.

The journal was strongly identified with Werner himself and his naturalistic philosophical approach. This was not due to any formal strictures he imposed on its content, but rather to his graceful combination of intellectual rigor with an openness to phenomena and ideas arising from a wide range of scientific and philosophical disciplines, in the context of the most important questions that could be asked about them: Where did they come from? How do they take form? How do we and other sentient organisms interact with the world so as to comprehend such esoteric and more elemental features of it? The official name of the journal, *Biological Theory: Integrating Development, Evolution, and Cognition*, though rarely articulated, reflects these foundational concerns.

Werner's notion of naturalism, and the terrain of this journal, was the opposite of dogmatic. In his book *Taking the Naturalistic Turn, Or How Real Philosophy of Science is Done* (University of Chicago Press, 1993), he stated, "The naturalistic perspective implies that *matters of fact* are as relevant to philosophical theory as they are relevant

in science" (p. 1). Later on he noted that he did not use the phrase "empirical turn" in the title, since doing so would have uneasily associated his philosophical perspective with those based on "hopelessly naïve empiricist views about methodology" (p. 109).

So the journal's existing philosophical *Weltanschauung* of testability tempered with a bit of rationalism seems about right to me. My own scientific work has convinced me that the complexity and historical transformations of living systems preclude reductionist accounts based on any privileged ontology. The evolution of animal developmental mechanisms, the area with which I am most familiar, provides many examples of multiscale, multidirectional causation in which the originating determinants—molecular and physical—of present-day organisms can only be inferred indirectly from arrangements that have undergone continual revision. For such systems, concepts like "function," "mechanism," and "adaptation" are unstraightforward. And compared to some of the other topics taken up in the pages of *Biological Theory*—languages, minds, cultures—embryos, with their largely known ingredients and formative principles, seem relatively comprehensible. Given the rapid changes in all fields of biological research, in a few years the journal will likely be running articles dealing with concepts and phenomena, and philosophical considerations of them, that Werner, or any of us working today, would have barely imagined.

I have been involved with *Biological Theory* as an associate editor since its inception ten years ago, and with the KLI beginning a decade before that, collaborating with Gerd and Werner on themes featured in the journal, particularly evolutionary developmental biology. Our discussions, and those with another long-time editor, Linnda Caporael, often veered toward the social and cultural dimensions of biological research: how notions of the nature

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of living systems are influenced by the social formations they arise in, and how the fruits of the life sciences—conceptual and technological—are appropriated and used by those who wield power in society. Although these issues have not been an explicit part of the journal's mission in the past, I invite scholars concerned with them to consider publishing their work in *Biological Theory*.

Since taking on the editorship, I have been greatly encouraged by the quality of the submissions that have continued to arrive from scholars at every career stage, including predoctoral students. Members of the editorial board and administrative staff have been exceptionally generous with their time in recommending reviewers,

providing reviews of their own, and fine-tuning the Editorial Manager website to make the submission and refereeing process as trouble-free as possible for all involved. The journal happily has remained on schedule during the transition period.

Werner Callebaut created a unique and increasingly indispensable journal. Gerd Müller and the KLI's board of directors, and Springer Science + Business Media, *Biological Theory's* publisher, have given me the privilege of guiding it. With the help of those reading this and the wider community of philosophers and theorists of biology, I am optimistic about its ever more critical role in our various fields.