
Individuality and Immunology's Theories of Cognition

Alfred Tauber*¹

¹Center for Philosophy and History of Science (CPHS) – 745 Coimmonwealth Ave. Boston, MA 02215,
United States

Abstract

Notions of individuality in the immunological context typically begin with a given distinction of self and other, and from that dichotomy conditions of identity are built. Given that the 'immune self' is defended by the immune system, protection of this agent requires a cognitive capacity by which the self and the foreign are perceived and thereby discriminated; from such information, discernment of the environment is achieved and activation of pathways leading to an immune response may be initiated. Despite the wide-spread use of a terminology supporting the so-called cognitive paradigm (e.g., 'perception,' 'recognition,' 'learning,' and 'memory'), the philosophical character of such functions has not been explored. When different formulations of cognition are considered, immunology's conceptual infrastructure shifts: 1) extensions of folk psychological understanding of representational cognition based on a subject-object dichotomy support notions of autonomous agency, and 2) an 'ecological' theory of perception dispenses with representations for a model where direct environmental presentation offers an alternative to the predicate structure dominating current immune theory. Reviewing the historical development of immunology, these two understandings of perception – representational and ecological (associated with J.J. Gibson) – are discussed as offering competing views of immune cognitive functions, which in turn provides a critical perspective on the assumptions of a science based on individuality as its governing precept.

*Speaker