

Synthese (2009) 170:211–215
DOI 10.1007/s11229-009-9579-8

Introduction

Tim Crane · Brian P. McLaughlin

Received: 2 June 2009 / Accepted: 2 June 2009 / Published online: 30 June 2009
© Springer Science+Business Media B.V. 2009

Jerry Fodor, by common agreement, is one of the world's leading philosophers. At the forefront of the cognitive revolution since the 1960s, his work has determined much of the research agenda in the philosophy of mind and the philosophy of psychology for well over 40 years. This special issue dedicated to his work is intended both as a tribute to Fodor and as a contribution to the fruitful debates that his work has generated.

One philosophical thesis that has dominated Fodor's work since the 1960s is realism about the mental. Are there really mental states, events and processes? From his first book, *Psychological Explanation* (1968), onwards, Fodor has always answered this question with a resolute yes. From his early rejection of Wittgensteinian and behaviourist conceptions of the mind, to his later disputes with philosophers of mind of the eliminativist ilk, he has always been opposed to views that try to explain away mental phenomena. On his view, there are minds, and minds can change the world.

What can science tell us about the nature of mental phenomena? To this question, Fodor has tended to give a mixed answer. He takes a very different view about consciousness from the view that he takes about intentionality. He was an early proponent of a psycho-functional approach to intentionality, championing the view that intentional states can be understood within the framework of a scientific, computational psychology. But he was also an early opponent of any functionalist approach to consciousness. In his 1972 paper, "What Psychological States Are Not," written with Ned Block, Fodor pressed the problem of inverted qualia for any functionalist approach

T. Crane

Faculty of Philosophy, University of Cambridge, Sidgwick Avenue, Cambridge, CB3 9DA, UK
e-mail: cranetim@mac.com

B. P. McLaughlin (✉)

Philosophy Department, Rutgers University, 26 Nicole Avenue, New Brunswick, NJ 08901, USA
e-mail: brianmc@rci.rutgers.edu

to consciousness. (This paper coined the terms ‘inverted qualia’ and ‘absent qualia’.) Since then, as concerns consciousness, Fodor has tended towards silence occasionally punctuated with scepticism towards the current scientific approaches, which treat consciousness as a functional phenomenon. His focus has remained on intentionality.

As well as being a realist about intentional states, Fodor is also a physicalist, and his work has concentrated on how to harmonise physicalism and intentional realism. His earlier views (for example, in the 1974 paper “Special Sciences”) were explicitly anti-reductionist, but in later years he moved more explicitly in the direction of reductionism. To make room for intentionality in a physical world, we cannot take intentionality as a fundamental feature of the world: this is the point of Fodor’s remark in *Psychosemantics* (1987) that if intentionality is real, it must really be something else. Fodor’s reductionism and his anti-reductionism are discussed in this special issue by Barry Loewer.

Fodor’s physicalist account of intentionality involves two distinct steps. The first is to analyse intentional states as relations to internal representations. This is the Language of Thought (LOT) hypothesis, first defended in his highly acclaimed *The Language of Thought* (1975). The LOT hypothesis says both that the causal structure of intentionality is a computational structure *and* that the items on which these computations operate are sentence-like in that they have semantic properties and recursive syntactic structure. The meanings of these sentence-like mental representations —“mentalese sentences”—are the contents of intentional states. Thus, for example, to believe that *p* is bear a certain relation to a mentalese sentence that means that *p*. The view involves a kind of proof-theoretical conception of mind, according to which computational transitions from one mentalese sentence to another mentalese sentence will, *ceteris paribus*, make sense given the meanings of the sentences, even though the sentences participate in computational processes solely in virtue of their syntactic and other formal features. The second step is to give a naturalistic account of the meanings of mentalese sentences, one in terms of causal and nomic relations to items in the world. This is Fodor’s psychosemantics, first outlined in his 1987 book of that name.

The LOT hypothesis invokes the notion of a mental symbol: concepts are word-like mental symbols that are the constituents of the complex mental symbols that are mentalese sentences. In this special issue, Susan Schneider critically examines Fodor’s notion of a mental symbol.

In the 1980s a challenge to the LOT hypothesis came from the defenders of connectionism, the view that treats representations as distributed patterns of activity across the units of a network of interconnected units, and as lacking syntactic structure in Fodor’s sense. Fodor and Pylyshyn (1988) argued that to offer an adequate account of cognition, connectionism must explain the systematicity and productivity of thought as well as the inferential coherence of thought processes, and that it appears that it can do so only by providing an implementation architecture for a LOT cognitive architecture. They placed emphasis on the thesis that thought is systematic because, unlike the thesis that thought is productive (that we can in principle think an unbounded number of thoughts), the systematicity thesis does not involve an idealization to an unbounded cognitive capacity, an idea some connectionists rejected. Despite their discussion and later discussions of the challenge that the systematicity of thought poses for connec-

tionism (e.g., Fodor and McLaughlin 1990), there remains controversy over what, exactly, the systematicity of thought is supposed to be, and over whether thought is indeed systematic. In this special issue, Brian P. McLaughlin attempts to clarify and motivate the systematicity challenge to connectionism.

Fodor has always thought of the LOT hypothesis as a hypothesis about what is sometimes called ‘central mind’: the reasoning and belief-desire-intention system. Central mind is contrasted with mental modules: for example, input systems like the visual system. As defended in his 1983 classic, *The Modularity of Mind*, a module is a relatively isolated mental subsystem that is, for example, domain-specific and inferentially encapsulated. The modularity idea has been massively influential, with some theorists, to Fodor’s chagrin, applying his ideas about modules much more widely than he originally intended, embracing the so-called “massive modularity” thesis.

Central to Fodor’s theory of intentionality is his theory of content. The task for this theory is conceived of as giving a compositional semantics for the language of thought. In a series of papers that have been collected into a volume, *The Compositionality Papers* (2002), Fodor and Ernest Lepore have defended the need for the semantics to be compositional. This claim concerns, so to speak, intra-linguistic relations only. But semantic relations between words and the world cannot be taken as primitive, so some account also has to be given of them. Fodor thinks that the basis of this account must be in terms of causal, nomic or informational relations between symbols in the language of thought and things in the world. His *A Theory of Content and Other Essays* (1990) argued that in order to solve the problem of error (of misrepresentation), which inevitably comes in the wake of causal theories of representation, the dependence of symbols on what they represent must be asymmetric. In other words, the causation of tokens of a symbol S in the LOT by non-Ss must be dependent on the causation of tokens of S by Ss; but not vice versa. This is his ‘asymmetric dependence’ theory of content.

On Fodor’s view, mental content is “wide” rather than “narrow.” That is, since the content of a mental representation is determined by a naturalistic relation to something in the world, the representation’s having the content fails to supervene on local or intrinsic properties of thinkers. Content is not “in the head,” on Fodor’s mature theory. In his earlier writings on this subject (for example, ‘Methodological Solipsism’ in his 1979 *Representations*), Fodor argued that there was a component of content that is narrow; and in *Psychosemantics* (1987) he also puts forward a two-component view of content in response to Putnam’s Twin Earth argument. But as his theory of content developed, from *A Theory of Content* (1990) through *The Elm and the Expert* (1994) to *Concepts* (1998a) and his most recent work, he rejected this kind of concession to internalism. The content of a concept is its denotation, plain and simple: what it refers to in the world. This leaves no room for an internal or narrow component of content at all. Gabriel Segal takes up this internalism vs. externalism debate in his contribution to this special issue.

One motivation for Fodor’s extreme content externalism is his desire to avoid holism. He has been a persistent critic of holism about linguistic meaning, and intentional content in general. Many of his criticisms were first outlined in *Holism* (1992), co-authored with Ernest Lepore. Fodor and Lepore argue that molecularism (the thesis that if two individuals share a belief, then they must share certain other beliefs

as well) can avoid collapsing into holism (the view that individuals cannot share any belief without sharing nearly all of their beliefs) only by relying on an untenable analytic/synthetic distinction. They further argue that holism makes psychological (intentional) generalisations impossible, and that this not only imperils the scientific study of the intentional, but also renders mental causation unintelligible. In recent years, Fodor has continued to press his attack on holist theories of content and meaning (use theories, conceptual role theories, etc.), calling them by the catch-all label ‘pragmatism’. Pragmatism, which Fodor calls “the defining catastrophe of analytic philosophy of language and philosophy of mind in the last half of the twentieth century,” is the target of Fodor’s *Hume Variations* (2003). Fodor continues to defend the thesis of conceptual atomism: the vast majority of our concepts are primitive, and the content of a primitive concept is determined solely by its relationships to something in the world, and so not by its relationship to other concepts or to perception and behaviour. In this special issue, Kevin Edwards discusses Fodor’s conceptual atomism.

Over almost the entire course of his career, Fodor’s work on mental content has been focused on the contents of concepts and how they contribute to the contents of thoughts. A number of philosophers maintain, however, that experiential mental states such as sense experiences (e.g., visual experiences) have non-conceptual contents. Recently, Fodor (2007) has found a place for non-conceptual content in his account of mental representation. In this special issue, Katalin Balog examines his proposal concerning non-conceptual content.

From *Psychological Explanation* (1968) through his collection of book reviews *In Critical Condition* (1998b), his books *The Mind Doesn’t Work That Way* (2000) and *Hume Variations* (2003), and his critiques in recent years of evolutionary psychology and of massive modularity theses, Fodor has relentlessly pursued his concerns with the foundations of cognitive science. These works manifest his opposition to views that push an explanatory paradigm too far, that fail to have a clear view of what kind of evidence counts in their favour, and that employ unexamined metaphors. They also demonstrate his truly formidable critical skills and, as well, a streak of pessimism. Fodor, however, is first and foremost an optimistic theory builder. His theories have become some of the dominant paradigms in contemporary philosophy of mind and cognitive psychology.

Fodor remains the best defender of the LOT hypothesis. His most recent book, *LOT2: The Language of Thought Revisited* (2008), rigorously defends and elaborates that hypothesis, one that has remained at center stage since he placed it there in 1975. Cognitive architecture, he continues to argue, includes a language a thought.

It is our hope that in addition to honouring Fodor and making contributions to some of the issues that he pioneered, this special issue will also serve to stimulate further research. There can be no greater tribute to Fodor than the rigorous pursuit of the questions that have been his life’s passion.

References

- Block, N., & Fodor, J. A. (1972). What psychological states are not. *Philosophical Review*, 81, 159–181.
 Fodor, J. A. (1968). *Psychological explanation*. USA: Random House.
 Fodor, J. A. (1974). Special sciences. *Synthese*, 28, 77–115.

- Fodor, J. A. (1975). *The language of thought*. Thomas Y. Crowell Co. Paperback, Harvard University Press.
- Fodor, J. A. (1979). *Representations: Essays on the foundations of cognitive science*. UK: Harvester Press and USA: MIT Press.
- Fodor, J. A. (1983). *The modularity of mind: An essay on faculty psychology*. USA: MIT Press.
- Fodor, J. A. (1987). *Psychosemantics: The problem of meaning in the philosophy of mind*. USA: MIT Press.
- Fodor, J. A. (1990). *A theory of content and other essays*. USA: MIT Press.
- Fodor, J. A. (1994). *The elm and the expert, mentalese and its semantics: The 1993 Jean Nicod lectures*. USA: MIT Press.
- Fodor, J. A. (1998). *Concepts: Where cognitive science went wrong: The 1996 John Locke lectures*. Oxford: Oxford University Press.
- Fodor, J. A. (1998). *In critical condition*. MIT Press.
- Fodor, J. A. (2003). *Hume variations*. Oxford: Oxford University Press.
- Fodor, J. A. (2007). The revenge of the given. In B. P. McLaughlin & J. Cohen (Eds.), *Contemporary debates in philosophy of mind*. (pp. 105–116). UK: Basil Blackwell.
- Fodor, J. A. (2008). *LOT2: The language of thought revisited*. Oxford: Oxford University Press.
- Fodor, J. A., & Lepore, E. (1992). *Holism: A shopper's guide*. UK: Basil Blackwell.
- Fodor, J. A., & Lepore, E. (2002). *The compositionality papers*. Oxford: Oxford University Press.
- Fodor, J. A., & McLaughlin, P. Brian (1990). Connectionism and the problem of systematicity: Why Smolensky's solution doesn't work. *Cognition*, 35, 183–204.
- Fodor, J. A., & Pylyshyn, Z. (1988). Connectionism and cognitive architecture: A critical analysis. *Cognition*, 28, 3–71.