Toward a Kantian Defense of Jackendoff’s Psychologism

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Terry Dartnall (2000) suggests that much cognitive modeling unwittingly commits a variant of psychologism – the fallacy of assimilating mathematical truth to psychological fact. The worry appears particularly acute for Ray Jackendoff’s (2002) conceptual semantics (CS) – a naturalist, internalist, generative account of meaning and of the language faculty.Appearances are however deceptive. I argue that CS’s psychologism, while real, is benign. Jackendoff’s theory of abstract objects can answer anti-psychologistic arguments if CS explicitly recognizes its Kantian leanings (cf. Falkenstein 1995). Furthermore, if this is correct, Jackendoff’s metaphysics gives grounds to reconsider whether sophisticated psychologism truly is a fallacy.

Psychologism in Cognitive Science

In its optimistic incarnations, cognitive science attempts to build computational – or perhaps dynamic – systems with human-equivalent cognitive architectures. The claim is that by constructing artificial human-equivalent functional architectures and yoking them to the environment at large, we can create entities capable of veritable intelligence and of the tacit platonism of its dominant, formal competitors. CS offers a psychologistic reading of reference and a reductive account of intentionality. Perhaps its most radical feature is a psychological constructivism about the perceived world reminiscent of Hume. (Indeed, Jackendoff too seems happy to side-step radical skeptical worries.) Significantly, CS views abstract mathematical objects as concepts with inferential features (but lacking perceptual features) that have the further psychological/semantic valuation external and are therefore judged to be ‘outside’ the body. CS is thus clearly psychologistic and owes an account of the objectivity, universality and normative force of mathematical truths. Jackendoff (2002) does not provide such an account.

Back to Kant

Falkenstein’s controversial, revisionist reading of Kant’s Transcendental Aesthetic (TA) can be adapted to lend a hand. On the basis of a close reading of the Aesthetic, Falkenstein suggests that Kant’s forms of sensibility may be construed both as transcendental conditions of any human experience and as the forms of the input to the sensibility (for there must be input!). This metaphysical account can readily be reconciled with Jackendoff’s own constructivism. If mathematical concepts are grounded in Kantian forms of sensibility in the same manner for each of us, worries about universality and objectivity can be assuaged. Likewise, an account of error as the mis-match between mathematical concepts and the sources of mathematical intuitions suggests itself.

If correct, this approach suggests that only naïve forms of psychologism (or reverse psychologism) need to be avoided in cognitive theorizing and model building.

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References