

- level of the emergent properties—a phenomenon that at the epistemic level may or may not produce unpredictability (on this distinction see O'Connor and Wong 2015).
- 8 Cf. Humphreys (1997), Kim (1999), (2006), Stephan (1999), Crane (2001), Clayton and Davies (eds.) (2006), Bedau and Humphreys (eds.) (2008), Corradini and O'Connor (eds.) (2010), O'Connor and Wong (2015).
  - 9 Cfr. Dupré (2012). In this perspective, mental properties may be seen as emerging from biological properties, which in turn emerge from chemical physical properties.
  - 10 O'Connor and Wong (2015).
  - 11 For some criticisms of the idea that Ontological Emergentism can rescue our idea of free will from the attacks of the eliminationists, see De Caro and Putnam (forthcoming).
  - 12 Putnam's italics.
  - 13 It should be noted that, in an intermediate phase of Putnam's philosophical development (between the early 90's to the beginning of the 2000's), in which he was deeply influenced by Wittgensteinian metaphysical quietism, Putnam avoided this question since he strongly sympathized with causal antirealism. In his last years, however, he abandoned metaphysical quietism and turned toward causal realism again: see Putnam (2012c) for an account of this intellectual development.
  - 14 As a member of jury trial, I may raise my hand for the final vote: a psychologist and neurophysiologist would explain that action of mine in very different ways.
  - 15 See Putnam (1984), (1999).
  - 16 See Mills (1996), Sider (2003), Lowe (2008), Roche (2014) for some more standard criticisms of the claim that overdetermination implies the falsity of Causal pluralism.
  - 17 See also Putnam (2012a). Analogously, starting with his famous 1960's functionalist papers (collected in Putnam 1975b), he refused all forms of psychophysical reductionism. Moreover, in his last years, Putnam also liberalized his functionalism, since he came to believe that the subvenient bases of mental events are not just neurological but environment-involving events (see Putnam 2007).
  - 18 Putnam also endorsed a radical semantic view here. Not only did he say that there are some true judgments that do not concern scientifically accepted entities or properties, but he also thought that some of these judgments are objective without describing anything; that is, there can be "objectivity without objects", as in the case of ethical and mathematical judgments (Putnam 2004: 77–78). For example, no special moral entities (such as free-floating values) exist that make our moral judgments true or false, which is not to say that there are no non-special moral entities, since these certainly exist: they are the agents. But when we say that someone is good, there is no ontologically autonomous "goodness" to which we refer.
  - 19 We thank Michele Paolini Paoletti for his useful comments to a previous version of this paper. Mario De Caro is also grateful to the late Hilary Putnam for the innumerable conversations they had on the issues dealt with in this paper.

## References

- Anscombe, E. (1971). "Causality and Determination". Reprinted in Anscombe (1981). *The Collected Philosophical Papers of G. E. M. Anscombe, Vol. 2: Metaphysics and the Philosophy of Mind*. Minneapolis: University of Minnesota Press: 133–147
- Ayer, A. (1946). *Language, Truth, and Logic*. New York: Dover Publications
- Baker, L. R. (2000). *Persons and Bodies: A Constitution View*. Cambridge: Cambridge University Press



- (2014). *Naturalism and the First-Person Perspective*. New York: Oxford University Press
- Bedau, M. A., Humphreys, P. (eds.) (2008). *Emergence: Contemporary Readings in Philosophy and Science*. Cambridge (MA): MIT Press
- Clayton, P., Davies, P. (eds.) (2006). *The Re-Emergence of Emergence: The Emergentism Hypothesis from Science to Religion*. New York: Oxford University Press
- Corradini, A., O'Connor, T. (eds.) (2010). *Emergence in Science and Philosophy*. London: Routledge
- Crane, T. (2001). "The Significance of Emergence". In: Gillett, C., Loewer, B. (eds.), *Physicalism and Its Discontents*. Cambridge: Cambridge University Press: 207–224
- Davidson, D. (1970). "Mental Events". Reprinted in Davidson (1980). *Essays on Actions and Events*. Oxford: Oxford University Press: 207–227
- (1993). "Thinking Causes". In: Heil, J., Mele, A. (eds.) (1993): 3–17
- (1994). "Self-Portrait". In: Guttenplan, S. (ed.), *A Companion to the Philosophy of Mind*. Oxford: Blackwell: 231–236
- (1995). "Laws and Cause". *Dialectica*, 49: 264–279
- (1997). "Anomalous Monism". In: Wilson, R. A., Keil, F. C. (eds.), *MIT Encyclopedia of Cognitive Sciences*. Cambridge (MA): MIT Press: 30–31
- De Caro, M. (2011). "The Short Happy Life of the Swampman: Davidson and Social Externalism". In: Amoretti, C., Preyer, G. (eds.), *Triangulation: From an Epistemological Point of View*. Frankfurt: Ontos: 179–196
- De Caro, M., Putnam, H. (forthcoming). "Free will and Quantum Mechanics"
- Dupré, J. (2012). "It Is Not Possible to Reduce Biological Explanations to Explanations in Chemistry and/or Physics". In: Dupré, J. (ed.), *Processes in Life: Essays in the Philosophy of Biology*. Oxford: Oxford University Press: 128–142
- Goetz, C., Taliaferro, S. (2008). "Begging the Question of Evidence". Published online on September 15th, 2008. <http://www.naturalism.org/resources/book-reviews/exchange-on-goetz-and-taliaferros-naturalism>. Retrieved on August 24, 2016
- Heil, J., Mele, A. (eds.) (1993). *Mental Causation*. Oxford: Clarendon Press
- Humphreys, P. (1997). "How Properties Emerge". *Philosophy of Science*, 64: 1–17
- Kim, J. (1993a). "Can Supervenience and 'Non-Strict Laws' Save Anomalous Monism?". In: Heil, J., Mele, A. (eds.) (1993): 19–26
- (1993b). *Supervenience and Mind*. Cambridge: Cambridge University Press
- (1996). *Philosophy of Mind*. Boulder (CO): Westview Press
- (1998). *Mind in Physical World: An Essay on the Mind-Body Problem and Mental Causation*. Cambridge (MA): MIT Press
- (1999). "Making Sense of Emergence". *Philosophical Studies*, 95: 3–36
- (2006). *Philosophy of Mind*. 2nd Edition. Boulder (CO): Westview
- Lowe, E. J. (2008). *Personal Agency: The Metaphysics of Mind and Action*. Oxford: Oxford University Press
- Mills, E. (1996). "Interactionism and Overdetermination". *American Philosophical Quarterly*, 33: 105–117
- O'Connor, T. (2000). *Persons and Causes: The Metaphysics of Free Will*. New York: Oxford University Press
- O'Connor, T., Wong, H. Y. (2015). "Emergent Properties." In: Zalta, E. N. (ed.), *Stanford Encyclopedia of Philosophy*. Online
- Putnam, H. (1975a). "Do True Assertions Correspond to Reality?". In: Putnam (1975b: 70–84)
- (1975b). *Mind, Language and Reality: Philosophical Papers*. Vol. 2. Cambridge: Cambridge University Press
- (1984). "Is the Causal Structure of the Physical Itself Something Physical?". Reprinted in Putnam (1990b: 80–95)
- (1990a). "Is Water Necessarily H<sub>2</sub>O?". Reprinted in Putnam (1990b: 54–79)



- (1990b). *Realism with a Human Face*. Edited by J. Conant. Cambridge (MA): Harvard University Press
- (1999). *The Threefold Cord: Mind, Body, and World*. New York: Columbia University Press
- (2001). “Reply to Bernard Williams”. Reprinted in Putnam (2016). *Naturalism, Realism, and Normativity*. Edited by M. De Caro. Cambridge (MA): Harvard University Press: 44–55
- (2004). *Ethics without Ontology*. Cambridge (MA): Harvard University Press
- (2007). “Functionalism: Cognitive Science or Science Fiction?”. Reprinted in Putnam (2012b: 608–623)
- (2008). “Reply to Stephen White”. *European Journal of Analytic Philosophy*, 4: 29–32
- (2012a). “From Quantum Mechanics to Ethics and Back Again”. Reprinted in Putnam (2012b: 51–71)
- (2012b). *Philosophy in an Age of Science: Physics, Mathematics, and Skepticism*. Edited by M. De Caro and D. Macarthur. Cambridge (MA): Harvard University Press
- (2012c). “Wittgenstein: A Reappraisal”. Reprinted in Putnam (2012b: 482–492)
- (2015). “Reply to John Haldane”. In: Auxier, R. E., Anderson, D. R., Hahn, L. A. (eds.), *The Philosophy of Hilary Putnam*. Chicago: Open Court: 702–706
- Roche, M. (2014). “Causal Overdetermination and Kim’s Exclusion Argument”. *Philosophia*, 42: 809–826
- Sider, T. (2003). “What’s So Bad about Overdetermination?”. *Philosophy and Phenomenological Research*, 67: 719–726
- Stephan, A. (1999). “Varieties of Emergentism”. *Evolution and Cognition*, 5: 49–59