

References

- Acebes, A., Martin-Pena, A., Chevalier, V. & Ferrus, A. (2011). Synapse loss in olfactory local interneurons modifies perception. *Journal of Neuroscience*, 31(8), 2734–2745. Doi: 10.1523/jneurosci.5046–10.2011.
- Adams, F. & Campbell, K. (1999). Modality and abstract concepts. *Behavioral & Brain Sciences*, 22(4), 610.
- Adams, F. & Aizawa, K. (2008). *The Bounds of Cognition*. Malden, MA: Blackwell Pub.
- Ağaoğlu, M. N., Herzog, M. H. & Ögmen, H. (2012). Non-retinotopic feature processing in the absence of retinotopic spatial layout and the construction of perceptual space from motion. *Vision Research*, 71(0), 10–17. Doi: 10.1016/j.visres.2012.08.009.
- Allman J. M., Watson, K., Tetreault N. A. & Hakeem, A. (2005). Intuition and autism: a possible role for Von Economo neurons *Trends in Cognitive Sciences*, 9(8), 367–373.
- Anscombe, G. (1983). The causation of action. In C. S. Ginet, Sydney (ed.) *Knowledge and Mind: Philosophical Essays* (pp. 174–190). Oxford: Oxford University Press.
- Anscombe, G. E. M. (2000). *Intention* (2nd edn.). Cambridge, MA.: Harvard University Press.
- Appiah, K. A. (2007, December 9). *Idea Lab – The New Philosophy*, *The New York Times*.
- Aquinas, S. T. (1947). *Summa Theologica*. New York: Benziger Brothers, Inc.
- Aristotle & Ross, W. D. (1956). *De anima*. Oxonii: E Typographeo Clarendoniano.
- Atlas, J. (2012). My amygdala made me do it, *The New York Times*. Retrieved May 12 from <http://www.nytimes.com/2012/05/13/opinion/sunday/the-amygdala-made-me-do-it.html>.
- Avenanti, A., Buetti, D., Galati, G. & Aglioti, S. M. (2005). Transcranial magnetic stimulation highlights the sensorimotor side of empathy for pain. *Nature Neuroscience*, 8(7), 955–960.
- Ayden, M., Herzog, M. H. & Ogmen, H. (2008). Perceived speed differences explain apparent compression in slit viewing. *Vision Research*, 48(15), 1603.
- Bach, P., Bayliss, A. P. & Tipper, S. P. (2011). The predictive mirror: interactions of mirror and affordance processes during action observation. *Psychonomic Bulletin & Review*, 18(1), 171–176. Doi: 10.3758/s13423-010-0029-x.
- Bakker, P. J. J. M. & Thijssen, J. M. M. H. (2007). *Mind, Cognition and Representation: The Tradition of Commentaries on Aristotle's De anima*. Aldershot, England; Burlington, VT: Ashgate Pub.
- Bargh, J. A. (2006). What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology*, 36(2), 147.
- Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioral & Brain Sciences*, 22(4), 577.

- Barsalou, L. W. (2003). Situated simulation in the human conceptual system. *Language & Cognitive Processes*, 18(5/6), 513–562.
- Barsalou, L. W. (2008). Grounded Cognition. *Annual Review of Psychology*, 59(1), 617.
- Barsalou, L. W., Kyle Simmons, W., Barbey, A. K. & Wilson, C. D. (2003). Grounding conceptual knowledge in modality-specific systems. *Trends in Cognitive Sciences*, 7(2), 84.
- Barsalou, L. W., Niedenthal, P. M., Barbey, A. K., Ruppert, J. A. & Brian, H. R. (2003). Social embodiment. *Psychology of Learning and Motivation* (Volume 43, p. 43). Academic Press.
- Barsalou, L. W., Santos, A., Simmons, W. K. & Wilson, C. D. (2008). Language and simulation in conceptual processing. In A. M. Glenberg, M. De Vega & A. C. Graesser (ed.) *Symbols, Embodiment, and Meaning* (pp. 245–284). Oxford: Oxford University Press.
- Baxter, D. L. M. (2001). Hume on steadfast objects and time. *Hume Studies*, 27(1), 129–148.
- Block, N. (2005). Action in perception. *Journal of Philosophy*, 102(5), 259–272.
- Brentano, F. C. (1973). *Psychology from an Empirical Standpoint* (A. C. Rancurello, O. Kraus & L. L. McAlister, Trans.). London, New York: Routledge and Kegan Paul, Humanities Press.
- Buckley, C. (2007). Man is rescued by stranger on subway tracks. *The New York Times*, Jan. 3, p. 1.
- Campbell, J. (2007). What is the role of spatial awareness in visual perception of objects? *Mind & Language*, 22(5), 548.
- Carey, S. & Xu, F. (2001). Infants' knowledge of objects: beyond object files and object tracking. *Cognition*, 80(1–2), 179.
- Chabris, C. F. & Simons, D. J. (2010). *The Invisible Gorilla: Thinking Clearly in a World of Illusions*. New York: Crown Publishers.
- Chemero, A. (2009). *Radical Embodied Cognitive Science*. Cambridge, MA: MIT Press.
- Clark, A. (1997). *Being There: Putting Brain, Body, and World Together Again*. Cambridge, MA: MIT Press.
- Clark, A. & Toribio, J. (1994). Doing without representing? *Synthese*, 101(3), 401–431.
- Clark, J. A. (2010). Relations of homology between higher cognitive emotions and basic emotions. [Article]. *Biology & Philosophy*, 25(1), 75–94. Doi: 10.1007/s10539-009-9170-1.
- Cools, R., Calder, A. J., Lawrence, A. D., Clark, L., Bullmore, E. & Robbins, T. W. (2005). Individual differences in threat sensitivity predict serotonergic modulation of amygdala response to fearful faces. *Psychopharmacology*, 180(4), 670.
- Cowie, F. (2003). Hurford's partial vindication of classical empiricism. *Behavioral & Brain Sciences*, 26(3), 289.
- Crane, T. (2003). *The Mechanical Mind: A Philosophical Introduction to Minds, Machines, and Mental Representation* (2nd edn.). London, New York: Routledge.
- Crane, T. (2006). Is there a perceptual relation? In T. S. Gendler & J. Hawthorne (eds) *Perceptual Experience* (p. 550). Oxford: Clarendon Press.
- Crane, T. (2009). Is perception a propositional attitude? *Philosophical Quarterly*, 59(236), 452.

- Cronin, J., McAdam, E., Danikas, A., Tselepis, C., Griffiths, P., Baxter, J., et al. (2011). Epidermal growth factor receptor (egfr) is overexpressed in high-grade dysplasia and adenocarcinoma of the esophagus and may represent a biomarker of histological progression in barrett's esophagus (be) [Article]. *American Journal of Gastroenterology*, 106(1), 46–56. Doi: 10.1038/ajg.2010.433.
- Cummins, P. D. (1996). Hume on qualities. *Hume Studies*, XXII, 49–88.
- Dancy, J. (2002). Horse sense. *Times Literary Supplement* 5174(28).
- Davidson, D. (2001). *Essays on Actions and Events* (2nd edn.). Oxford, New York: Clarendon.
- Dayan, P. & Abbott, L. F. (2001). *Theoretical Neuroscience: Computational and Mathematical Modeling of Neural Systems*. Cambridge, MA: Massachusetts Institute of Technology Press.
- Decety, J. & Ickes, W. J. (2009). *The Social Neuroscience of Empathy*. Cambridge, MA: MIT Press.
- Decety, J. & Jackson, P. L. (2006). A social-neuroscience perspective on empathy, *Current Directions in Psychological Science*, 15(2), 54.
- Dehaene, S. (1997). *The Number Sense: How the Mind Creates Mathematics*. New York: Oxford University Press.
- Dehaene S., E. S., Pinel P., Stanescu R. & Tsivkin S. (1997). Sources of mathematical thinking: behavioral and brain-imaging evidence. *Science*, 284(7), 970–974.
- Dretske, F. I. (1981). *Knowledge & the Flow of Information*. Cambridge, MA: MIT Press.
- Dretske, F. I. (1995). *Naturalizing the Mind*. Cambridge, MA: MIT Press.
- Dreyfus, H. L. & Wrathall, M. A. (2006). *A Companion to Phenomenology and Existentialism*. Malden, MA: Blackwell Pub.
- Edwards, K. (2009). What concepts do. *Synthese*, 170(2), 289–310.
- Egan, F. (1998). Review: [untitled]. *The Philosophical Review*, 107(1), 118.
- Eger, E., Michel, V., Thirion, B., Amadon, A., Dehaene, S. & Kleinschmidt, A. (2009). Deciphering cortical number coding from human brain activity patterns. *Current Biology*, 19(19), 1608.
- Evans, M. A. (1965). Mimicry and the darwinian heritage. *Journal of the History of Ideas*, 26(2), 211.
- Feigenson, L., Dehaene, S. & Spelke, E. (2004). Core systems of number. *Trends in Cognitive Sciences*, 8(7), 307.
- Fekete, T. & Edelman, S. (2011). Towards a computational theory of experience. [Article]. *Consciousness and Cognition*, 20(3), 807–827. doi: 10.1016/j.concog.2011.02.010
- Feldman, Barrett, L. & Russell, J. A. (1999). The structure of current affect: controversies and emerging consensus [Article]. *Current Directions in Psychological Science (Wiley-Blackwell)*, 8(1), 10–14.
- Feldman, L. A. (1995). Valence focus and arousal focus: individual differences in the structure of affective experience [Article]. *Journal of Personality & Social Psychology*, 69(1), 153–166.
- Flynn, J. J., Nedbal, M. A., Drago, J. W. & Honeycutt, R. L. (2000). Whence the red panda? *Molecular Phylogenetics and Evolution*, 17(2), 190.
- Fodor, J. (1974). Special Sciences (or: The disunity of science as a working hypothesis). *Synthese: An International Journal for Epistemology, Methodology and Philosophy of Science*, 28, 97–115.
- Fodor, J. A. (1975). *The Language of Thought*. New York: Crowell.

- Fodor, J. A. (1990). *A Theory of Content and Other Essays*. Cambridge, Mass.: MIT Press.
- Fodor, J. (1997). Special sciences: still autonomous after all these years. *Nous-Supplement: Philosophical Perspectives*, 11, 149–163.
- Fodor, J. A. (1983). *The Modularity of Mind: An Essay on Faculty Psychology*. Cambridge, MA: MIT Press.
- Fodor, J. A. (2003). *Hume Variations*. Oxford. New York: Clarendon Press; Oxford University Press.
- Fodor, J. A. (2008). *LOT 2: The Language of Thought Revisited*. Oxford, New York: Clarendon Press; Oxford University Press.
- Foot, P. (2001). *Natural Goodness*. Oxford: Clarendon.
- Ford, A., Hornsby, J. & Stoutland, F. (2011). *Essays on Anscombe's Intention*. Cambridge, MA: Harvard University Press.
- Frasca-Spada, M. (2002). Feminist interpretations of David Hume. *Philosophical Books*, 43(3), 221.
- Gallagher, S. (2005). *How the Body Shapes the Mind*. Oxford, New York: Clarendon Press.
- Gallagher, S. (2008). Are minimal representations still representations? [Article]. *International Journal of Philosophical Studies*, 16(3), 351–369. Doi: 10.1080/09672550802113243.
- Garrett, D. (1997). *Cognition and Commitment in Hume's Philosophy*. New York: Oxford University Press.
- Gendler, T. S. (2008a). Alief and belief. *Journal of Philosophy*, 105(10), 634.
- Gendler, T. S. (2008b). Alief in action (and reaction). *Mind & Language*, 23(5), 552.
- Gendler, T. S. & Hawthorne, J. (2006). *Perceptual Experience*. Oxford: Clarendon Press.
- Gerstner, W. & Kistler, W. M. (2002). *Spiking Neuron Models: Single Neurons, Populations, Plasticity*. Cambridge, UK: New York: Cambridge University Press.
- Giaquinto, M. (2006). Mental number lines. In P. Carruthers (ed.) *The Innate Mind, Volume 2: Culture and Cognition* (pp. 112–130). New York: Oxford University Press.
- Gilbert, P. & Lennon, K. (2005). *The World, the Flesh and the Subject: Continental Themes in Philosophy of Mind and Body*. Edinburgh: Edinburgh University Press.
- Goldman, A. I. (2006). *Simulating Minds: The Philosophy, Psychology, and Neuroscience of Mindreading*. Oxford, New York: Oxford University Press.
- Goodale, M. A. & Milner, A. D. (1991). A neurological dissociation between perceiving objects and grasping them. *Nature*, 349(6305), 154.
- Goodman, N. (1968). *Languages of Art: An Approach to a Theory of Symbols*. Indianapolis: Bobbs-Merrill.
- Griffiths, P. E. (1997). *What Emotions Really Are: The Problem of Psychological Categories*. Chicago: University of Chicago Press.
- Griffiths, P. E. (2004). Is emotion a natural kind? In R. Soloman (ed.) *Thinking About Feeling: Contemporary Philosophers on Emotions*. New York: Oxford University Press.
- Griffiths, P. E. & Scarantino, A. (2005). Emotions in the Wild: The Situated Perspective on Emotion. In P. Robbins & M. Aydede (eds) *The Cambridge Handbook of Situated Cognition*. Cambridge, UK: Cambridge University Press.

- Griffiths, P. E. & Scarantino, A. (2009). Emotions in the wild. In P. Robbins & M. Aydede (eds) *Cambridge Handbook of Situated Cognition*. Cambridge, UK: Cambridge University Press.
- Hamlin, J. K., Wynn, K. & Bloom, P. (2007). Social evaluation by preverbal infants. *Nature*, 450(7169), 557.
- Harman, G. (1990). The intrinsic quality of experience. *Philosophical Perspectives*, 4, 31–52.
- Hatfield, E., Cacioppo, J. T. & Rapson, R. L. (1994). *Emotional Contagion*. New York: Cambridge University Press.
- Heilman, K. M. (2000). Emotional experience: a neurological model. In R. D. Lane & L. Nadel (eds) *Cognitive Neuroscience of Emotion* (pp. 328–344). Oxford: Oxford University Press.
- Hobbes, T. & Gaskin, J. C. A. (1998). *Leviathan*. Oxford, New York: Oxford University Press.
- Hofbauer, R., Rainville, P., Duncan, G. H. & Bushnell, M. C. (2001). Cortical representation of the sensory dimension of pain. *Journal of Neurophysiology*, 86(1), 402–411.
- Huemer, W. (2009). Franz Brentano. *The Stanford Encyclopedia of Philosophy (Fall 2009 Edition)*. Retrieved from <http://plato.stanford.edu/archives/fall2009/entries/brentano>.
- Hume, D. (2001). *An Enquiry Concerning Human Understanding: A Critical Edition*. Oxford, New York: Clarendon Press; Oxford University Press.
- Hume, D. & Falkenstein, L. (2011). *An Enquiry Concerning Human Understanding*. Peterborough, Ont. ; Buffalo, NY: Broadview Press.
- Hume, D., Norton, D. F. & Norton, M. J. (2000). *A Treatise of Human Nature*. Oxford, New York: Clarendon Press, Oxford University Press.
- Hurford, J. R. (2003). The neural basis of predicate-argument structure. *Behavioral & Brain Sciences*, 26(3), 261.
- Hutto, D. D. (2008). *Folk Psychological Narratives: The Sociocultural Basis of Understanding Reasons*. Cambridge, MA: MIT Press.
- Hutto, D. D. (2011). Representation reconsidered [Article]. *Philosophical Psychology*, 24(1), 135–139. Doi: 10.1080/09515089.2010.529261.
- Iacoboni, M. (2008). *Mirroring People: The New Science of How We Connect with Others*. New York: Farrar, Straus and Giroux.
- Iacoboni, M., Molnar-Szakacs, I., Gallese, V., Buccino, G., Mazziotta, J. C. & Rizzolatti, G. (2005). Grasping the intentions of others with one's own mirror neuron system. *PLoS Biology*, 3(3), 529–537.
- Jackson, P. L., Meltzoff, A. N. & Decety, J. (2005). How do we perceive the pain of others? A window into the neural processes involved in empathy. *NeuroImage*, 24(3), 771.
- Jackson, P. L., Meltzoff, A. N. & Decety, J. (2006). Neural circuits involved in imitation and perspective-taking. *NeuroImage*, 31(1), 429.
- Jackson, P. L., Rainville, P. & Decety, J. (2006). To what extent do we share the pain of others? Insight from the neural bases of pain empathy. *Pain* (03043959), 125(1/2), 5.
- Jacobson, A. J. (1992). A problem for naturalizing epistemologies. *Southern Journal of Philosophy*, 30(4), 31–49.
- Jacobson, A. J. (1993). A problem for causal theories of reasons and rationalizations. *Southern Journal of Philosophy*, 31(3), 307–321.

- Jacobson, A. J. (2000a). *Feminist Interpretations of David Hume*. University Park, PA: Pennsylvania State University Press.
- Jacobson, A. J. (2000b). The Soul unto itself. *Arobase: Journal Des Lettres Et Sciences Humaines*, 4(1–2), 100–125.
- Jacobson, A. J. (2003). Mental representations: what philosophy leaves out and neuroscience puts in. *Philosophical Psychology*, 16(2), 189–203.
- Jacobson, A. J. (2005). Is the brain a memory box? *Phenomenology and the Cognitive Sciences*, 4(3), 271–278.
- Jacobson, A. J. (2007). Empathy, primitive reactions and the modularity of emotion. *Canadian Journal of Philosophy*, 36(Suppl vol 32), 95–113.
- Jacobson, A. J. (2008). What should a theory of vision look like? *Philosophical Psychology*, 21(5), 641–655.
- Jacobson, A. J. (2009). Empathy and instinct: cognitive neuroscience and folk psychology. *Inquiry: An Interdisciplinary Journal of Philosophy*, 52(5), 467–482.
- James, W. (1884). What is an emotion? *Mind*, 9, 188–205.
- Johnston, M. (2006). The function of sensory awareness. In T. S. Gendler & J. Hawthorne (eds) *Perceptual Experience* (pp. 260–290). Oxford: Oxford University Press.
- Justice, E. D., Macedonia, N. J., Hamilton, C. & Condron, B. (2012). The simple fly larval visual system can process complex images [10.1038/ncomms2174]. *Nat Commun*, 3, 1156. Doi: http://www.nature.com/ncomms/journal/v3/n10/supinfo/ncomms2174_S1.html.
- Kadosh, R. C. & Walsh, V. (2009). Numerical cognition: reading numbers from the brain. *Current Biology*, 19(19), R898.
- Kahneman, D. (2002). *Maps of Bounded Rationality*. Retrieved from <http://nobel-prize.org/economics/laureates/2002/kahnemann-lecture.pdf>.
- Kahneman, D. (2011). *Thinking, Fast and Slow* (1st edn.). New York: Farrar, Straus and Giroux.
- Keaton, D. (2012). *Exclusion, Yet Again*. Paper presented at the Americal Philosophical Association, Seattle, Washington.
- Kim, J. (2005). *Physicalism, or Something Near Enough*. Princeton, N.J.: Princeton University Press.
- Kim, J. (2007). Causation and mental causation. In B. P. McLaughlin & J. D. Cohen (eds) *Contemporary Debates in Philosophy of Mind*. Malden, MA: Blackwell Pub.
- King, P. (2007). Rethinking representation in the middle ages: a vade-mecum to mediaeval theories of mental representation. In H. Lagerlund (ed.) *Representation and Objects of Thought in Medieval Philosophy* (156 p.). Aldershot ; Burlington, VT: Ashgate.
- Kohler, E., Keyzers, C., Umiltà, M. A., Fogassi, L., Gallese, V. & Rizzolatti, G. (2002). Hearing sounds, understanding actions: action representation in mirror neurons. *Science*, 297(5582), 846–848.
- Kripke, S. A. (1980). *Naming and Necessity*. Cambridge, MA: Harvard University Press.
- Kripke, S. A. (1982). *Wittgenstein on Rules and Private Language: An Elementary Exposition*. Cambridge, MA: Harvard University Press.
- Lagerlund, H. (2008). Mental representation in medieval philosophy. *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*. Retrieved from <http://plato.stanford.edu/archives/fall2008/entries/representation-medieval>.

- LeDoux, J. (2000). Cognitive-emotional interactions: listen to the brain. In R. D. Lane & L. Nadel (eds) *Cognitive Neuroscience of Emotion* (pp. 129–155). Oxford: Oxford University Press.
- Leonardo Fogassi, Ferrari, P. F., Gesierich, B., Rozzi, S., Chersi, F. & Rizzolatti, G. (2005). Parietal lobe: from action organization to intention understanding. *Science*, *308*, 662–667.
- Liu, W., Yi, Z., Lin, X. & Al-Rasheid, K. A. S. (2011). Morphologic and molecular data suggest that *lynnella semiglobulosa* n. g., n. sp. represents a new family within the subclass choreotrichia (ciliophora, spirotrichea) [Article]. *Journal of Eukaryotic Microbiology*, *58*(1), 43–49. Doi: 10.1111/j.1550-7408.2010.00519.x.
- Locke, J. & Fraser, A. C. (1894). *An Essay Concerning Human Understanding*. Oxford: Clarendon Press.
- Machery, E. (2009). *Doing Without Concepts*. Oxford, New York: Oxford University Press.
- Machery, E. (2010). Précis of doing without concepts [Article]. *Behavioral & Brain Sciences*, *33*(2/3), 195–244. Doi: 10.1017/s0140525x09991531.
- Machery, E. & Seppala, S. (forthcoming). Against hybrid theories of concepts. *Anthropology & Philosophy*.
- Marr, D. (1982). *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. San Francisco: W.H. Freeman.
- Martinez-Conde, S., Krauzlis, R., Miller, J. M., Morrone, C., Williams, D. & Kowler, E. (2008). Eye movements and the perception of a clear and stable visual world. *Journal of Vision*, *8*(14). Doi: 10.1167/8.14.i.
- Mason, M. (2001). Review of Ann Jaap Jacobson (ed.) *Feminist Interpretations of David Hume*. *Hume Studies*, *27*(1), 181–185.
- McClure, S. M., York, M. K. & Montague, P. R. (2004). The neural substrates of reward processing in humans: the modern role of fMRI. *Neuroscientist*, *10*(3), 260.
- McClure, S. M., Li, J., Tomlin, D., Cypert, K. S., Montague, L. M., & Montague, P. R. (2004). Neural correlates of behavioral preference for culturally familiar drinks. *Neuron*, *44*(2), 379.
- McCormick, M. (2001). Review of *Feminist Interpretations of David Hume*, Jacobson, Anne Jaap (eds). *Philosophy in Review (Comptes Rendus Philosophiques)*, *21*(2), 125–127.
- Mihalopoulos, C., Vos, T., Pirkis, J., Smit, F. & Carter, R. (2011). Do indicated preventive interventions for depression represent good value for money? [Article]. *Australian & New Zealand Journal of Psychiatry*, *45*(1), 36–44. Doi: 10.3109/00048674.2010.501024.
- Millikan, R. G. (1984). *Language, Thought, and Other Biological Categories: New Foundations for Realism*. Cambridge, MA: MIT Press.
- Montague, P., Dayan, P., Person, C., Sejnowski, T. J. (1994). Bee foraging in uncertain environments using predictive hebbian learning. *Nature*, *377*, 725–728.
- Montague, P. R. (2003). Uncertainty rules. *Nature*, *424*(6947), 371.
- Montague, P. R., King-Casas, B. & Cohen, J. D. (2006). Imaging valuation models in human choice. *Annual Review of Neuroscience*, *29*(1), 417.
- Montague, P. R. & Quartz, S. R. (1999). Computational approaches to neural reward and development. *Mental Retardation and Developmental Disabilities Research Reviews*, *5*, 86–99.

- Montague, R. (2007). *Your Brain is (Almost) Perfect: How We Make Decisions*. New York: Penguin Group.
- Murphy, G. L. (2002). *The Big Book of Concepts*. Cambridge, MA: MIT Press.
- Nadler, S. M. (1989). *Arnauld and the Cartesian Philosophy of Ideas*. Princeton, N.J.: Princeton University Press.
- Neander, K. (2004). Teleological theories of mental content. In E. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*.
- Nietzsche, F. W., Horstmann, R.-P. & Norman, J. (2002). *Beyond Good and Evil: Prelude to a Philosophy of the Future*. Cambridge, New York: Cambridge University Press.
- Noe, A. (2012). *The Zombie Within*. Retrieved from <http://www.npr.org/blogs/13.7/2012/05/18/153025680/the-zombie-within?print=1>.
- Noë, A. & Thompson, E. (2002). *Vision and Mind: Selected Readings in the Philosophy of Perception*. Cambridge, Mass.: MIT Press.
- Noë, A. (2004). *Action in Perception*. Cambridge, MA: MIT Press.
- Noë, A. (2005). Against intellectualism [Article]. *Analysis*, 65(4), 278–290. Doi: 10.1111/j.1467-8284.2005.00567.x.
- Noë, A. (2009). *Out of our heads: why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness* (1st edn.). New York: Hill and Wang.
- Ögmen, H. (2007). A theory of moving form perception: synergy between masking, perceptual grouping, and motion computation in retinotopic and non-retinotopic representations. *Advances in Cognitive Psychology*, 3(1–2), 67–84.
- Ogmen, H., Otto, T. U. & Herzog, M. H. (2006). Perceptual grouping induces non-retinotopic feature attribution in human vision. *Vision Research*, 46(19), 3234.
- Olatunji, B. O. & McKay, D. (2009). *Disgust and Its Disorders: Theory, Assessment, and Treatment Implications* (1st edn.). Washington, D.C.: American Psychological Association.
- Owens, J. (1993). Aristotle and Aquinas. In N. Kretzman & E. Stump (eds) *The Cambridge Companion to Aquinas*. Cambridge, UK: University of Cambridge.
- Padilla Fajardo, N. & Ortega Alvarado, C. H. (1998). *Antología del Cuento Zacapaneco* (2nd edn.). Zacapa, Guatemala, C.A.: s.n.
- Paivio, A. (1986). *Mental Representations: A Dual Coding Approach*. New York, Oxford [Oxfordshire]: Oxford University Press; Clarendon Press.
- Palmer, S. E. (1999). *Vision Science: Photons to Phenomenology*. Cambridge, MA: MIT Press.
- Pasnau, R. (1998). Aquinas and the Content Fallacy. *Modern Schoolman: A Quarterly Journal of Philosophy*, 75(4), 293–314.
- Pecher, D., Zeelenberg, R., & Barsalou, L. W. (2004). Sensorimotor simulations underlie conceptual representations: modality-specific effects of prior activation. *Psychonomic Bulletin & Review*, 11(1), 164–167.
- Prinz, J. (2006). Putting the Brakes on Enactive Perception. *Psyche*, (12), 1–19. Retrieved from <http://www.theassc.org/files/assc/2627.pdf>
- Prinz, J. J. (2000). The Duality of Content. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 100(1), 1.
- Prinz, J. J. (2002). *Furnishing the Mind: Concepts and Their Perceptual Basis*. Cambridge, Mass: MIT Press.

- Prinz, J. J. (2004). *Gut Reactions: A Perceptual Theory of Emotion*. Oxford, New York: Oxford University Press.
- Pylyshyn, Z. W. (2000). Situating vision in the world. *Trends in Cognitive Sciences*, 4(5), 197.
- Pylyshyn, Z. W. (2007). *Things and Places*. Cambridge, Massachusetts: MIT.
- Quine, W. V. (1951). Two dogmas of empiricism. *Philosophical Review*, 60, 20–43.
- Ramachandran, V. S. (2004). *A Brief Tour of Human Consciousness: From Imposter Poodles to Purple Numbers*. New York: Pi Press.
- Ramsey, W. (2003). Are receptors representations? *Journal of Experimental & Theoretical Artificial Intelligence*, 15(2), 125.
- Ramsey, W. (2007). *Representation Reconsidered*. Cambridge, UK, New York: Cambridge University Press.
- Rangel, A., Camerer, C. F. & Montague, P. R. (2008). A framework for studying the neurobiology of value-based decision making. *Nature Reviews Neuroscience*, 9(7), 545–556.
- Rizzolatti, G. & Craighero, L. (2004). The mirror-neuron system. *Annual Reviews Neuroscience*, 27, 169–192.
- Rowlands, M. (1999). *The Body in Mind: Understanding Cognitive Processes*. Cambridge, UK, New York: Cambridge University Press.
- Rowlands, M. (2006). *Body Language: Representation in Action*. Cambridge, MA: MIT Press.
- Rowlands, M. (2010). *The New Science of the Mind: From Extended Mind to Embodied Phenomenology*. Cambridge, MA: MIT Press.
- Rupert, R. D. (2009). *Cognitive Systems and the Extended Mind*. Oxford, New York: Oxford University Press.
- Sato, J. J., Wolsan, M., Minami, S., Hosoda, T., Sinaga, M. H., Hiyama, K., et al. (2009). Deciphering and dating the red panda's ancestry and early adaptive radiation of Musteloidea. *Molecular Phylogenetics and Evolution*, 53(3), 907.
- Scarantino, A. (2009). Core affect and natural affective kinds [Article]. *Philosophy of Science*, 76(5), 940–957.
- Schlosser, M. E. (2011). Agency, ownership and the standard theory. In J. H. Aguilar, A. A. Buckareff & K. Frankish (eds) *New Waves in Philosophy of Action*. Houndmills, Basingstoke, Hampshire; New York: Palgrave Macmillan.
- Sharpee, T. O., Atencio, C. A. & Schreiner, C. E. (2011). Hierarchical representations in the auditory cortex. *Current Opinion in Neurobiology*, 21(5), 761–767. Doi: 10.1016/j.conb.2011.05.027
- Shea, N. (2012). Reward prediction error signals are meta-representational. *Noûs*, no-no. Doi: 10.1111/j.1468-0068.2012.00863.x
- Shoemaker, S. (2007). *Physical Realization*. Oxford, New York: Oxford University Press.
- Shields, C. J. (2007). *Aristotle*. London, New York: Routledge.
- Shizgal, P. & Arvanitogiannis, A. (2003). Neuroscience: gambling on dopamine. *Science*, 299(5614), 1856–1858. Doi: 10.1126/science.1083627.
- Shuler, M. G. & Bear, M. F. (2006). Reward timing in the primary visual cortex. *Science*, 311(5767), 1606–1609. Doi: 10.1126/science.1123513.
- Siegel, S. (2006). Which properties are represented in perception? In T. S. Gendler & J. Hawthorne (eds) *Perceptual Experience*. Oxford: Oxford University Press.
- Siegel, S. (2010). *The Contents of Visual Experience*. New York: Oxford University Press.

- Smith, M. (1987). The Humean theory of Motivation. *Mind: A Quarterly Review of Philosophy*, 96, 36–61.
- Stanley, J. & Williamson, T. (2001). Knowing how. *Journal of Philosophy*, 98(8), 411.
- Stich, S. P. (1990). *The Fragmentation of Reason : Preface to a Pragmatic Theory of Cognitive Evaluation*. Cambridge, Mass.: MIT Press.
- Strabe, T., Preissler, S., Lipka, J., Hewig, J., Mentzel, H.-J. & Miltner, W. H. R. (2010). Neural representation of anxiety and personality during exposure to anxiety-provoking and neutral scenes from scary movies. *Human Brain Mapping*, 31(1), 36–47. Doi: 10.1002/hbm.20843.
- Strawson, P. F. (1974). *Freedom and Resentment, and Other Essays* [London]: Methuen [distributed in the USA by Harper & Row, Barnes & Noble Import Division].
- Stroud, B. (2000). 'Gilding or staining' the world with 'Sentiments' or 'Phantasms'. In R. R. K. A. Richman (ed.) *The New Hume Debate: Revised Edition* (pp. 16–30). London: Routledge.
- Stueber, K. (2008). Empathy. In E. N. Zalta (ed.) *The Stanford Encyclopedia of Philosophy*. (Spring 2013 Edition), <http://plato.stanford.edu/archives/spr2013/entries/empathy/>.
- Stueber, K. R. (2006). *Rediscovering Empathy: Agency, Folk Psychology, and the Human Sciences*. Cambridge, MA: MIT Press.
- Stump, E. (2003). *Aquinas*. London, New York: Routledge.
- Thompson, M. (2008). *Life and Action: Elementary Structures of Practice and Practical Thought*. Cambridge, MA: Harvard University Press.
- Traiger, S. (1987). Impressions, ideas, and fictions. *Hume Studies*, 13, 381–399.
- Treisman, A. (2007). *How the deployment of attention determines what we see*.
- Treisman, A. (2006). How the deployment of attention determines what we see. *Visual Cognition*, 14(4–8), 411.
- Umiltà, M. A., Kohler, E., Gallese, V., Fogassi, L., Fadiga, L., Keysers, C. & Rizzolatti, G. (2001). I know what you are doing: a neurobiological study. *Neuron*, 31, 1–20.
- Ward, J. (2006). *The Student's Guide to Cognitive Neuroscience*. New York, NY: Psychology Press.
- Wedge, R. (2006). The internal and external components of cognition. In R. J. Stainton (ed.) *Contemporary Debates in Cognitive Science* (pp. 307–325), Oxford: Blackwell Publishing Company.
- Wee, C. (2006). *Material Falsity and Error in Descartes' Meditations*. London, New York: Routledge.
- Wheeler, M. (2005). *Reconstructing the Cognitive World: The Next Step*. Cambridge, MA: MIT Press.
- Wheeler, M. (2008). Minimal Representing: A Response to Gallagher. [Article]. *International Journal of Philosophical Studies*, 16(3), 371–376. Doi: 10.1080/09672550802113276.
- Wicker, B. (2003). Both of us disgusted in my insula: the common neural basis of seeing and feeling disgust. *Neuron* 40(3), 655–755.
- Williams, L., Liddell, B. J., Kemp, A. H., Bryant, R. A., Meares, R. A., Peduto, A. S. & Gordon E. (2005). Amygdala-prefrontal dissociation of subliminal and supraliminal fear. *Human Brain Mapping*, 27, 652–661.
- Wilson, D. S. (2007). One for all. *American Scientist*, 95(3), 269.

- Wilson, T. D. & Bar-Anan, Y. (2008). Psychology: the unseen mind. *Science*, 321(5892), 1046–1047. Doi: 10.1126/science.1163029.
- Wittgenstein, L. (1963). *Philosophical Investigations* (English text reprinted. ed.). Oxford: Blackwell.
- Yermolayeva, Y. & Rakison, D. H. (2010). Developing without concepts [Editorial Material]. *Behavioral and Brain Sciences*, 33(2–3), 229. Doi: 10.1017/s0140525x10000518.
- Zeki, S. (1999). *Inner Vision : An Exploration of Art and the Brain*. Oxford, New York: Oxford University Press.

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