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## *Imagining Minds*

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The concepts of imagination and consciousness have, very arguably, been inextricably intertwined at least since Aristotle initiated the systematic study of human cognition (Thomas, 1998). To imagine something is *ipso facto* to be conscious of it (even if the wellsprings of imaginative *creativity* are in the unconscious), and many have held that our conscious thinking consists largely or entirely in a succession of mental images, the products of imagination (see, e.g., Damasio, 1994 — or, come to that, see Aristotle, or Hume, or almost any pre-twentieth century cognitive theorist). A venerable tradition also regards perceptual experiences, the main focus of most recent work on consciousness, as products of the imagination, whose primary function is to integrate sensory inputs and render them meaningful (Thomas, 1998; 1999). As Coleridge (1817) famously put it, *primary imagination* is ‘the living power and prime agent of all human perception’. A better understanding of imagination is likely to deepen our insight into the nature of consciousness (and, probably, vice-versa).

This conference, featuring talks by a neuroscientist, a primatologist and an archaeologist, as well as several philosophers, seems to have been convened with the worthy ambition of initiating an interdisciplinary discussion of the scientifically neglected topic of the imagination, much as this journal, and the Tucson conferences, have fostered the interdisciplinary study of consciousness. Getting ‘imagination studies’ off the ground, however, may turn out to be a taller order. Although consciousness was notoriously neglected through most of the twentieth century, according to Brann (1991) imagination has been a ‘missing mystery’ virtually throughout Western philosophical history, implicitly assigned crucial cognitive and epistemological functions, but rarely (and never satisfactorily) explained. A more recent tradition views it as an irremediably unscientific, even anti-scientific, notion (Daston, 1998).

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Furthermore, even more than for ‘consciousness’, there is reason to worry that ‘imagination’ may be a systematically ambiguous or polysemous word. It gets used informally to mean everything from artistic creative power, to the faculty of mental imagery, to mere agility of mind; and since the work of Ryle (1949), the polysemy of ‘imagination’ has become almost a philosophical commonplace. Dix (1985) differentiates no less than 15 senses in which ‘imagine’ and ‘imagination’ are used in either colloquial or philosophical English.

So was this a conference about a mental faculty called imagination, or just a bunch of presentations about some of the more mysterious aspects of cognition, related by nothing more than their invocation of a notoriously slippery, rhetorical and unscientific word? Did Marco Iacoboni’s work on the neuroscience of motor imagery really bear much relation to Dominic Lopes’ insights into the communicative functions of pictures, or to George Graham’s conceptual analysis of schizophrenic symptoms? Were Steven Mithen’s speculations about the cognitive adaptations that allowed *homo sapiens* to out-compete *homo neandethalis* really relevant to Jonathan Lear’s ruminations on irony in psychoanalysis? Maybe; but I heard no-one at this meeting make any serious attempt to explain what connection, if any, there might be between the superficially diverse senses of ‘imagination’ that the various speakers invoked. This was especially disappointing to me as someone who has actually worked on the issue of the meaning and conceptual coherence of ‘imagination’, arguing against the polysemy view (Thomas, 1997; 1999), and it was surprising because I know at least one of the conference organizers has done related work (Kind, 2001). I am not saying that no progress can be made in ‘imagination studies’ without an explicit consensus about what ‘imagination’ means, but it seems unlikely that the nascent field can truly flourish unless it at least faces up to the problem, and it was not faced at this meeting.

Forewarning of this came in a pre-conference broadcast on the local National Public Radio station (KPCC, 2003) featuring one of the scheduled conference speakers, Dr. Sarah Boysen. The interviewer, mindful of the conference topic, led off by asking about the meaning of ‘imagination’. Boysen seemed startled by the question, completely ducked it, and quickly steered the conversation towards her studies of chimpanzee cognition. Explicit discussion of imagination (in either humans or chimps) was avoided, even when a call-in listener attempted to raise the topic again. Perhaps clever apes are *per se* imaginative apes, but there was not even a hint of an attempt to make out a case for thinking so.

Unfortunately I was not able to attend the conference’s opening talk, Jonathan Lear’s ‘Ironic Imagination: In Therapy, Psychoanalysis, Life’. It appears from his abstract (from the conference web site) that Lear was concerned with how it is that mere conversation (presumably he meant the extended ‘conversation’ between psychoanalyst and client) can radically transform one’s outlook on life, and he takes the view that ‘imagination plays a crucial role — and that life-changing imagination is essentially ironic’. He appears, however, to have been more concerned to elucidate the concept of irony than that of imagination.

The first full day of the conference opened with two philosophical aestheticians, Gregory Currie on ‘Ancient Arts, Ancient Minds’ (thematically close to Steven Mithen’s later presentation) and Dominic Lopes, who, although his abstract promised a conceptual analysis of imagination that would distinguish between sensory and propositional imagination, and prioritize the latter, in fact spent most of his time discussing the different sorts of communicative functions that pictures can play for us. I was interested by his notion of a ‘directive’ function in much pictorial representation: Quite apart from affording aesthetic enjoyment, or even conveying information about appearances, pictures can serve to guide or direct action (including mental actions, he argued, such as the direction of attention). More or less pure examples of ‘directive pictures’ might be traffic signs, or the graphical instructions for assembling your IKEA furniture, but Lopes argued that more subtle directives are often found in other sorts of picture.

Currie is well known for his advocacy of the so called *simulation theory* of interpersonal understanding (Gordon, 1986; Davies & Stone, 1995). He has taken the lead in applying it to aesthetics, and in attempting to develop it into a general theory of imagination. According to simulation theory, our ability to understand and anticipate the thoughts, feelings, and actions of other people depends, at root, not on some sort of ‘folk theory’ (as some believe) but on our ability to imagine how we ourselves would feel and act if we were in someone else’s situation. I am sympathetic to simulation theory, but it does not seem to me to provide a promising basis for explaining imagination itself. Currie’s (1995) attempt to give a simulation based account of mental imagery invokes a sense of simulation that seems so weak as to be virtually empty. All three of the hotly contending substantive theories of imagery (Thomas, 2003) — indeed, probably anything that would even *count* as a theory of imagery — turn out to be simulation theories from this perspective. On the other hand, simulation in the stronger sense of our ability to vicariously experience the thoughts, feelings, and intentions of others, depends, surely, upon our broader imaginative abilities. We imagine ourselves into someone else’s shoes, as it were. To explain imagination in terms of simulation in *this* sense is circular.

Neuroscientist Marco Iacoboni, who presented next, also apparently leans toward simulation theory. He discussed the now famous ‘mirror neurons’ that have been proposed as the neural basis of mental simulation because they fire not only when an animal performs a certain type of action, but also when it observes another doing so (Gallese & Goldman, 1998). Iacoboni himself is investigating the large-scale neural architecture subserving motor imagery (the imagining of actions) and imitation, hoping to elucidate the general mechanisms by which the brain enables us to understand the actions, emotions and intentions of others. But would even total success in this ambitious project provide an understanding of the neural basis of imagination? Although interpersonal understanding is plausibly construed as an imaginative ability, it is not imagination its very self. We can imagine many things besides other people’s mental states.

Iacoboni was followed by philosopher George Graham talking about how schizophrenics sometimes imagine that certain thoughts they have are not their

own, but are somehow ‘inserted’ into their minds from without. However, he did not focus on what imagination must be in order for the ‘inserted thought’ phenomenon to be possible, but, rather, on what the phenomenon entails about the foundations of our sense of selfhood: interesting and important stuff, no doubt, but, again, not really a talk about the imagination as such.

The most entertaining and perhaps most intellectually ambitious presentation of the conference followed: archeologist Steven Mithen’s ‘Evolution of the Imaginative Mind’. Mithen argued that it was imagination that gave *homo sapiens* its decisive evolutionary advantage over *homo neandethalis* and other hominids, allowing our ancestors to quickly drive the Neanderthals into extinction, despite the fact that the older species was better physically adapted to the cold European winters than the newcomers from Africa. However, for Mithen, ‘imagination’ turned out to mean no more than ‘cognitive fluidity’: hardly the same thing as Brann’s ‘*missing mystery of philosophy*’ (1991), or Coleridge’s ‘repetition in the finite mind of the eternal act of creation in the infinite I AM’ (1817), or even Aristotle’s ‘process by which we say that an image is presented to us’ (*De Anima* 428a).

Mithen hypothesizes that the Neanderthal mind was highly modularized, with, in particular, distinct modules devoted to social interaction, to technical matters such as tool making, to natural history (subserving their hunting and gathering), and to language (although Mithen presented no very compelling arguments for his view that the Neanderthals already had true language). He thinks that the adaptive ‘cognitive fluidity’ of *homo sapiens* arose from a breakdown in this modularity, allowing for a fruitful cross-fertilization between the different sorts and spheres of thinking. He supports this theory via his interpretation of the representational artefacts (carvings, cave paintings, etc.) that, he claims, arrive in the archeological record only with *homo sapiens*.

Mithen story is fascinating, but there seems to be a paradox in his use of modularism. The notion that minds are highly modularized first developed as a theory of contemporary human cognition (Fodor, 1983). It was then speculatively projected back into the past by the evolutionary psychology movement. But Mithen holds that the modern human mind is relatively non-modular. He seems to be sawing off the theoretical branch he sits on. If the mind of *homo sapiens*, the only hominid mind we can know and study directly, is not (very) modular after all, why should modularism be a good framework for understanding hominid minds in general?

Our insight, such as it is, into the minds of extinct hominids is, surely, a matter of informed extrapolation from our own self understanding, and much the same can presumably be said for our faltering attempts to understand the minds of other animals. This, at least, seems to have been the burden of Colin Allen’s talk ‘King Solomon’s Imagination’ (alluding to the famous book by Konrad Lorenz [1952], and the legend of King Solomon’s magic ring that let him talk with the animals). Although it might be beyond us to imaginatively understand the *phenomenal* life of animals, to truly grasp ‘what it is like to be a bat’, Allen seemed

to think that imagining our way into an understanding of their *intentional* life, in the spirit of simulation theory, might not be quite such an intractable task.

Sarah Boysen's empathetic studies of chimpanzee cognition may well exemplify the sort of research that Allen advocates. Her presentation was the last of the conference, and both her anecdotal and her quantitative evidence were interesting and quite possibly (I am not really qualified to judge) constitute a significant contribution toward our understanding of chimp (and even human) cognition. However, as with her radio interview, so far as I could tell her talk was not about *imagination* at all. I do not think she even *attempted* to make a case for any of the abilities demonstrated by her apes being distinctively imaginative. Boysen may be a fine scientist, but it is not clear to me why she was presenting at *this* conference.

After Boysen's talk, we reconvened for a round table discussion, with all the presenters (except Lear) gathered on the stage, and a somewhat diminished audience assembled to hear them. Although a handful of questions were fielded from the floor, in practice this turned out to be mostly a conversation between the seven presenters. I was heartened to find that at least two of them, Lopes and Graham, seemed to share my concern that the nature of the imagination, the ostensible topic of the whole conference, had not yet been properly addressed. Their efforts to steer the conversation in this direction, however, met with little success, and what developed was, for the most part, a conversation about *play* — in human children, hominids, and animals. Much play (but surely not all: consider playing solitaire) is plausibly regarded as inherently imaginative, and it may well contribute to the development of broader imaginative (and simulative) abilities. However, as with so much that was said at this meeting, this conversation seemed to be obliquely rather than directly relevant to the subject of imagination itself.

Despite my complaints, in most respects this conference must be accounted a success. The venue was suitable and pleasant, and the presentations, taken on their own individual terms, were generally interesting and enlightening. I do wonder if the study of imagination can truly flourish, however, unless it plucks up the courage to confront its subject matter head on.

## References

- Brann, E.T.H. (1991), *The World of the Imagination* (Savage, MD: Rowman & Littlefield).  
 Coleridge, S.T. (1817), *Biographia Literaria*, ed. G. Watson (London: Dent, 1975).  
 Currie, G. (1995), 'Visual imagery as the simulation of vision', *Mind and Language*, **10**, pp. 25–44.  
 Damasio, A.R. (1994), *Descartes' Error* (New York: Putnam).  
 Daston, L. (1998), 'Fear and loathing of the imagination in science', *Daedalus*, **127**, pp. 73–95.  
 Davies, M. & Stone, T. (ed. 1995), *Mental Simulation* (Oxford: Blackwell).  
 Dix, M.R. (1985), *An Inquiry into the Nature of Imagination and its Roles in Cognition* (Unpublished Ph.D. thesis, La Trobe University, Australia).  
 Fodor, J.A. (1983), *The Modularity of Mind* (Cambridge, MA: MIT Press).  
 Gallese, V. & Goldman, A.I. (1998), 'Mirror neurons and the simulation theory of mind-reading', *Trends in Cognitive Sciences*, **2** (12), pp. 493–501.  
 Gordon, R.M. (1986), 'Folk psychology as simulation', *Mind and Language*, **1**, pp. 158–71.

- Kind, A. (2001), 'Putting the image back in imagination', *Philosophy and Phenomenological Research*, **62**, pp. 85–109.
- KPCC (2003), 'Imagination in the animal kingdom (Kitty Felde interviews Dr. Sarah Boysen)', broadcast February 4th, 2003. [Available online at [http://www.scpr.org/programming/talkofthecity/listings/2003/02/totc\\_20030203.shtml](http://www.scpr.org/programming/talkofthecity/listings/2003/02/totc_20030203.shtml)]
- Lorenz, K. (1952), *King Solomon's Ring: New Light on Animal Ways*, trans. M.K. Wilson (New York: Crowell).
- Ryle, G. (1949), *The Concept of Mind* (London: Hutchinson).
- Thomas, N.J.T. (1997), 'Imagery and the coherence of imagination: A critique of White', *Journal of Philosophical Research*, **22**, pp. 95–127. [Available online: <http://www.calstatela.edu/faculty/nthomas/whit-abs.htm>]
- Thomas, N.J.T. (1998), 'Imagination, eliminativism, and the pre-history of consciousness,' presented at *Toward a Science of Consciousness (Tucson III)*, Tucson AZ, April 30th, 1998. [Available online <http://www.calstatela.edu/faculty/nthomas/im-c-abs.htm>]
- Thomas, N.J.T. (1999), 'Imagination', in *Dictionary of Philosophy of Mind*, ed. C. Eliasmith (WWW document: <http://www.artsci.wustl.edu/~philos/MindDict/imagination.html>).
- Thomas, N.J.T. (2003), 'Mental Imagery, Philosophical Issues About', in *Encyclopedia of Cognitive Science, Vol. 2*, ed. L. Nadel (London: Nature Publishing). [Available online: <http://www.calstatela.edu/faculty/nthomas/mipia.htm>]