

Baars Falls Prey to the Timidity He Rejects: Commentary on Baars on Contrastive Analysis

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Abstract: Baars (1994) affirms Crick & Koch's (1992) position that the timidity most cognitive scientists show in the face of consciousness is ridiculous. Unfortunately, all three succumb to a variation on the timidity they deprecate. Furthermore, Baars' own method, "contrastive analysis," is at odds with the computational conception of mind that dominates contemporary cognitive science.

1.1 Baars is right to affirm Crick & Koch's (1992) position that the timidity most cognitive scientists show in the face of consciousness is ridiculous. Unfortunately, all three succumb to a variation on the timidity they deprecate: they shrink back from trying to tackle the daunting "explanatory chasm," <1> eloquently encapsulated by T.H. Huxley (1866):

How it is that anything so remarkable as a state of consciousness comes about as a result of irritating nervous tissue, is just as unaccountable as the appearance of Djin when Aladdin rubbed his lamp.

1.2 Baars seems to say at one point that some investigators of consciousness have as a goal "knowing what it's like to be a bat." But of course there are no such people; the search for a scientifically respectable account of consciousness is hardly vespertilian.

What some investigators *do* aim at is conquering the explanatory chasm. And it's true that in order to conquer it we'll have to discover what information about the physical world explains the what-it's-like-to-be-an-X form of consciousness, and how it does so. [This is the observation with which Jackson's (1982) color scientist argument begins. It ends with the conclusion -- via reasoning I regard to be fundamentally correct -- that there is no information about the physical world which could even in principle suffice; see (Bringsjord, [1994a](#), 1992).] What Baars must mean, then, is that a scientifically respectable account of consciousness needn't meet the *Bat Challenge*: the account needn't allow us to conquer the explanatory chasm. But this, alas, is a timid position.

1.3 As Block (in press) points out, Crick & Koch turn timid too in the face of the explanatory chasm. Their famous theory, in a nutshell, is that a synchronized 35-75 hertz neural oscillation in the sensory areas of the cortex is at the heart of the consciousness with which Nagel and Jackson are concerned. But what, prey tell, is the principled and informative connection between synchronized 35-75 hertz neural oscillation and what it's like, say, to be a human writing under a deadline? The connection seems entirely arbitrary. In fact, it seems easy enough to imagine a being who enjoys such oscillation but is thoroughly devoid of an inner life. And of course anyone [like Bringsjord (1994b) and Block (in press)] who argues that zombies -- creatures who have brains operating as ours but no subjective awareness whatsoever -- are possible, will find the C-K theory to have absolutely nothing to do with the nature of what-it's-like-to-be-an-X consciousness.

1.4 Baars will no doubt reply that unlike C & K he is *avowedly* timid; he *means* to dodge the Bat Challenge (= BC). For that matter, Baars premeditatedly drops from consciousness discourse not only what-it's-like-to-be-an-X consciousness, but also the concept of self with which it's intertwined (Section 2.4). But why should we take these stunning shortcuts? Baars tells us -- correctly -- that tackling BC will preclude separating consciousness from self, but he never really tells us why this is objectionable. He also tells us that BC is ``ominously reminiscent of the protracted arguments about the consciousness of ants and amoebas that caused so much trouble in psychology around 1900" ([Section 2.5](#)). But this will hardly justify the Baarsian shortcut for those inclined to take some risks. If we had been this risk-averse on the question ``What is a proof?``, we wouldn't have seen the Euclid-Aristotle-Hobbes-Frege-Turing progression from utter ignorance to today's high-speed computers [see (Glymour, 1992) for a nice account of this story].

1.5 Baars may at this point make explicit that which is mere subtext in this paper, viz., that avoiding a discussion of the self is desirable, because confronting the issues involved will lead to a protracted and difficult investigation. But this is the same anemic justification all over again; it's just the ``ants and amoebas" worry in another guise.

1.6 Perhaps Baars will admit that he is certainly no gambler when it comes to progress on the explanatory chasm, while at the same time reminding us that his own approach does play significant dividends. Baars' approach, of course, is `contrastive analysis.' Is it fruitful? Well, what contrastive analysis yields is a list of properties to be associated with a conscious state; Baars gives us an up-to-date list in [Section 8.6](#). The list includes the

following properties: having adequate duration, being perceptual or imagistic, and being dependent upon voluntary control to retrieve and maintain them. But how do we know that this list isn't adventitious? How do we know that these properties have something to do with the *nature* of consciousness? I'm not pointing out that this list fails to allow us to bridge the explanatory chasm. I made that point above, and the Baars-Bringsjord dialectic has gone beyond it. My point now is rather that the dividends contrastive analysis is supposed to pay, in the absence of an attack on the Bat Challenge, may be exceedingly small -- because the list of properties which we associate with consciousness via this method may simply reflect the situation local to our own planet. Consider, for illumination of this point, the following parable:

1.7 Suppose that NASA's SETI (Search for Extraterrestrial Life) project pans out in the year 2011: in that year we discover intelligent life beneath the surface of Mars. It turns out that Martians, in addition to being wondrous spelunkers, are also silicon-, not carbon-based. Not only that, but Martians enjoy conscious states which lack most if not all of the properties on the contrastive analysis list: their conscious states are evanescent, aren't perceptual or imagistic (because Martians don't have sensors like ours, nor do they enjoy a correlate to our powers of visual imagery), and are *independent* of voluntary control (Martians, if you like, are at the mercy of conscious states which happen *to* them). Now, such beings are peculiar, but they don't seem to be impossible. In fact, the possibility that there are such creatures is precisely what has moved most of us to reject type materialism (put roughly, the view that mentation can't possibly happen if the physical substrate in question is different from ours) in favor of computational brands of functionalism (put roughly, the view that mentation requires the correct computational flow of information, which may be instantiated in *any* physical substrate) which form the core of traditional symbolic AI and cognitive science.

1.8 Of course, Baars may reply that the objectives he has in mind for contrastive analysis are exceedingly humble. He may not only agree that this method fails to bridge the explanatory chasm, but he may also agree that this approach fails to reveal the nature of consciousness. What, then, would be his thesis? It would presumably be that contrastive analysis produces a list of properties which *happen* to be associated with the brand of consciousness enjoyed by homo sapiens. To this I don't in the least object; I readily grant that he establishes this thesis. But for those who want to conquer the explanatory chasm, or at least live by the "cognition is computation" credo of traditional AI and cognitive science, a credo which is supposed to extend to intelligences that needn't be human, I find the thesis, again, unpalatably timid.<2>

Notes

<1> Levine (1983) coined the term 'explanatory gap.' Supplanting 'gap' with 'chasm' doesn't seem to me to produce a phrase which is the least bit hyperbolic.

<2> Of course, Baars and his followers may find circumspection where I find timidity. Readers will have to judge for themselves, but I suspect that a lot will depend on one's prior prejudices.

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