

Bill Faw

## *Whither Consciousness Studies?*

*ASSC-5 Conference At Duke, June 27–30, 2001*

During the last plenary session of the *first* conference of the Association for the Scientific Study of Consciousness (ASSC-1) in Claremont, California, in 1997, John Denver's song 'Almost Heaven' went through my mind. Of the 5–6 psychology/philosophy conferences I attend each year, the ASSC conferences (of which I have attended all except for Bremen in 1998) come the closest to giving me a continual intellectual natural high. I may be developing some psychological tolerance for this annual endorphin rush, but ASSC-5, at Duke University in Durham, North Carolina, continued to deliver. I have not yet been to a 'Tucson' conference, so these words are not meant as a comparison. I wasn't asked to write this report until the last session, and so was a double-blind participant observer, employing a blend of first-, second-, and third-person perspectives. The fact that I am a compulsive note-taker, even during the occasional boring session, must have been what impressed publisher Keith Sutherland.

Approximately 250 people attended this conference on 'The Contents of Consciousness: Perception, Attention, Phenomenology'. The advertised basic questions were: How rich is the content present in conscious experience? Do the contents of attention exhaust the contents of consciousness? What is the neural basis of the representation of conscious content? How does consciousness of our own body differ from consciousness of the external world? What methods are available to monitor the contents of consciousness in an experimental context? And, what is the relationship between consciousness and representation? My only concern is: having solved all of these problems, and the binding problem last year, and the problems of core consciousness, self, and explicit-and-implicit processing in earlier years, what does this Association have yet to do?

ASSC conferences begin with a morning and afternoon of optional pay-for-participation **workshops**. Workshop leaders can hold their 3-hour sessions if enough people pre-pay, and then the leaders get a cut of the slim take. This always leads to an interesting mix of philosophical argument, psychological data and the revelation of the latest brain-research methods and results. This year there were

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workshops on Synaesthesia, Schizophrenia, Phenomenological Methodology, Qualia Realism, Emotional Qualia, Memes, Living without Touch, Colour Experience, the Matter–Consciousness relation, and Blindsight. World-renown names such as Chris Frith, Doug Watt, Robert Van Gulick, Larry Weiskrantz, and others gave these workshops. However, the ASSC really needs to decide whether to enforce its \$50 per workshop rule or not — if only for the sake of us who do pay!

A second major structure of ASSC conferences is a series of **plenary talks**, **symposia**, and **colloquia** — the first two have ‘commentators’, while the colloquia don’t. The plenary topics this year ‘instantiated’ the conference theme of Contents of Consciousness: Blindsight/Prime-Sight, Brightness/Colour Contrast and Constancy, Change/Inattentional Blindness, Neural Baseline of Consciousness, Schizophrenic Consciousness, Bodily Awareness and Pain, Social/Affective Conscious Content, Perspectival Character of Consciousness, and the Unity of Sensation and Control in Consciousness. These sessions involved such additional notables as Ronald Rensink, Marcus Raichle, Owen Flanagan, Ralph Adolphs and Bill Lycan. This year’s presenters seemed to fit the overall theme better than usual, with fewer attempts to insert at the end of a presentation ‘an obligatory bow to consciousness’ or ‘binding’ or ‘attention’.

The ASSC needs to clarify its use of ‘commentators’. Slipping into my ‘second-person’ perspective: I heard some grumbling about this issue from an appropriately multi-disciplinary assortment of two psychologists, a philosopher, medical doctor and an astronomer, over a fine meal and assorted drinks at Durham’s Magnolia Restaurant. The upshot of the grumbling was that it makes sense for *philosophy* talks to have commentators, since they just argue anyway, but when a *neuroscientist* presents, there is nothing left to comment on. I believe this comment was made by a psychologist. The philosopher in the bunch suggested that a commentator should structure her talk so that in 5 minutes she summarizes what the speaker took 40 minutes to say and then in 5 more minutes states all that is left to be covered. (One knows immediately that the previous comment was made by a philosopher, since they always say ‘she’ and ‘her’ these days, while psychologists, MDs, and astronomers haven’t yet caught on to this attempt to counter 30 millennia of chauvinistic folk-psychological discourse.) All around the table agreed that on a scale of 0 to 10 (using a VAS Scale borrowed from the pain folks) the commentators up to that time ranged from ‘1’ to about ‘6’, with a mean of 3.4 and an SD of 1.5.

The third main structure of the ASSC conferences are **concurrent sessions**, with one set each of three afternoons. These are arranged in a 4x3 experiential design, with sessions in four rooms, with three 30-minute presentations, which are supposed to leave some time for discussion. It works all right if you stay in one room for the full time — unless it was Room 102 which was way too small. The scheduling is a bit dicey if you skip around to make sure you hear everybody you promised, or who you hope will hear you later. The concurrent sessions covered Functionalism, Implicit Processes, Higher Order Theories of Consciousness, Attention, Bodily Awareness and Pain, Filling-In, Dreams, Zombies, Introspection, Disorders of Perception, Colour, Binding, and what to do with Room 102.

In addition to these sessions, there were some 35 posters, faithfully woman-ed from 8.30 until 11.00 pm, Monday evening, and then left up for the rest of the conference. The posters allowed a number of additional presenters and topics.

Even conferences on consciousness are *embodied* in creature-consciousness concerns such as accommodations, meals, and the like. Despite heroic and generous efforts — by faculty, students and staff — to put on a conference at reasonable expense, there were a number of elements that caused lower-order thoughts among conference-goers, such as a month delay in registration, Spartan dormitory rooms, and Memorial-Day-weekend closings of eating facilities within walking distance. All of these shortcomings demonstrate the half-empty-glass aspect of low-budget peripatetic annual conferences that need to recruit a new batch of arrangers in each new location.

The half-full aspect, for a conference that alternates between North America and Europe each year, is that it allows the recruiting of a new batch of local scholars each year. A quick read of the programme shows 26 presenters, introducers, or commentators from the Greater Duke Intellectual Area, including Duke, UNC-Chapel Hill and Wake Forest Universities. (What happened to NC State?) Other years have featured concentrations of presenters and attendees from the Los Angeles, Bremen, London (Ontario), and Brussels areas. ASSC maintains a good balance between local-scholar draw and its wider catchment, with presenters this year from some 30 United States colleges and universities, about 10 Canadian schools, and universities in England, Finland, Germany, Israel, Taiwan, and the like. Not all attendees/participants are from universities — the astronomer mentioned above is from the National Observatory in DC — and not all from neuroscience, psychology and philosophy — I met one American professor of French literature.

Those of us attending ASSC every year — and especially those also attending Tucson and occasional consciousness conferences in Japan or London — fit St Luke's description of first-century Athens: 'all the Athenians and the foreigners living there would spend their time in nothing but telling or hearing something new' (*Acts* 17.21).<sup>1</sup> Indeed, I overheard two neuro-savvy world-renowned philosophers commenting, just prior to the double symposium/colloquium on Change Blindness, that they had heard the same 'travelling show' (their term) change-blindness researchers in Tucson, and wondered if we would hear anything new. And, of course, the new has to be presented by Power Point — at least until telepathic multimedia control becomes commercial.

This causes one to reflect on the fads and trends of both the neurological 'hard science' and the philosophical 'hard problem' of consciousness study. Lawrence Weiskrantz represented a remarkable blend of old and new at ASSC-5. His findings on blindsight had caught the empirical imagination of a generation of philosophers, single-handedly moving them beyond their long-standing understanding

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[1] This comparison prompts me to wonder which conferences might qualify for St Luke's description two chapters later of the rabble at Ephesus: 'Some therefore cried one thing, and some another: for the assembly was confused; and the greater part knew not why they were come together' (*Acts* 19.32) — *Editor*.

that ‘C-fibers have something to do with pain’. In his opening presidential lecture, Weiskrantz revealed some brand-new findings: that his famous subject DB has reported seeing afterimages in his blind field where he ‘saw’ no original images, a phenomenon that Weiskrantz has dubbed ‘*primesight*’.

While there was some mention of long-known phenomena such as blindsight, neglect and extinction, and priming and implicit processing, the hot empirical topic given most attention this year was **change- and inattentive-blindness**. The bottom line here seemed to be that one needs *attention* to note individual objects and, thus, to notice change within a scene; and yet there seem to be implicit ‘sensings’ of change — cutely dubbed ‘*mindsight*’ (Rensink). Inattentive blindness, implicit perception, change blindness, and attentional blink all show priming effects (Mack). Conscious change-detection requires the convergence of ventral (object perception) and dorsal (attentional) visual stream (Diane Beck), contradicting some theories of the ‘ventral stream’ being conscious and the ‘dorsal stream’ being unconscious (a current theme among some philosophers). Arien Mack raised controversy with her thesis that there is no conscious perception without attention, leading Jeremy Wolfe to retort that that would suggest that one’s inattentive ‘surround’ is filled with black holes — sort of like tunnel vision (Faw).

What may be the hot topic for next year’s conference is brain evidence presented in somewhat parallel presentations by Marcus Raichle and Chris Frith, about a **cortical mid-line strip** involved in various aspects of awareness: (a) posterior cingulate (with medial parietal cortex) involved in monitoring pre-attentive peripheral vision (Raichle); (b) posterior-portion of anterior-cingulate activated during focusing attention upon conscious motor functioning (Frith); (c) middle-portion of anterior cingulate activated during focusing attention upon objects — perceptual attention (Raichle & Frith); and (d) anterior-portion of anterior cingulate (with ventral-medial prefrontal cortex) activated during self-focused attention (Raichle) upon one’s internal feelings and emotions (Raichle & Frith). Object-attention tasks that activate #c, decrease below baseline the activity of #a and #d (Raichle). Conscious awareness of one’s own mental states and reflection upon others’ mental states (Theory of Mind activity) use overlapping portions of the anterior cingulate (Frith).

Ned Block suggested (in a brief at-the-podium discussion with Raichle, myself and a couple others) that this is evidence against a Higher Order Thought view of basic consciousness, in that a HOT theory would entail that the lowering of #d (self-monitoring) should reduce not increase consciousness during #c (object-attention).

There has always been a (sometimes-creative) tension within ASSC, Tucson, the consciousness journals, and in consciousness studies in general, among phenomenology, psychology, and neuroscience (Flanagan). ASSC conferences have maintained that tension, but with a weighting of (first) neuroscience, (second) psychology, and (third) phenomenology — with the last mainly presented by philosophers and clinical psychologists. As a professor of biological and cognitive psychology, I have appreciated the balance, but I sensed a stronger tilt toward

neuroscience and away from phenomenology/philosophy this year. There seemed to be more self-deprecation than usual among philosophers, with one philosopher stating a fairly simple distinction that he claimed it took a century for philosophers to resolve, and another apologizing for giving a purely philosophical argument. One could almost see their genuflecting to neuroscience as they said that. Perhaps most indicative of this empirical tilt is the fact that only one of the plenary symposia (but about a third of the workshops and concurrent sessions) was devoted to philosophy: ‘Subjectivity and the Perspectival Character of Consciousness’, with top-notch philosophers of consciousness John Perry, Bill Lycan, David Rosenthal, and discussant Murat Aydede. Those two hours did not contain a single neuroscientific fact!

Most of this session revolved around Frank Jackson’s 1986 cruel thought experiment about Mary being isolated for decades in a black-and-white room, while being tantalized with all known scientific information about colour vision. Jackson’s famous article claimed that, because Mary gained new ‘knowledge’ about colour when she was liberated into the technocolour world, seeing a red apple for instance, there must be a realm of Cartesian non-materialistic knowledge, beyond her scientific knowledge about colour. (Have perception researchers not shared with philosophers the news that pre-language perceptual systems store a wealth of ‘semantic memories’ that surely constitute ‘knowledge’?)

There was a dramatic ‘duh!!!’ moment when, in the discussion period, Robert Van Gulick mentioned that Jackson had recanted his dualistic argument in 1997 because Mary’s new knowledge came about through physical processes. But a comment at the beginning of the discussion period by a philosopher at the centre of ASSC leadership showed ASSC’s empirical tilt most strongly. This philosopher criticized the panel, saying that their arguments block interdisciplinary debate; to which John Perry replied that such philosophical reasoning does make a contribution, citing Stich to say that philosophy should be very simple-minded, doing context reconstruction — at some level of description (Lycan).

This exchange raises sharp questions about the respective roles of examining the brain (neuroscience), behavioural functioning (psychology) and analysis (philosophy). In one off-camera discussion, I mentioned to another psychologist that I was impressed with the way that philosophers such as Ned Block were mastering the nuances of neuroscience. The psychologist replied that philosophers had better do that, for otherwise they were running out of contributions to make to the understanding of consciousness. ASSC and the entire ‘consciousness community’ must wrestle with this perspective — is ‘**philosophy** of consciousness’ only valid when embedded in (and subservient to) neuroscience, or does it have independent analytical and even metaphysical contributions to make at each stage? Will ‘consciousness’ be totally ‘**reduced**’ to an understanding of neural networks, with even its ‘hard problem’ (Chalmers) whittled away? If so, then it will not only be unabashed dualists (like David Chalmers and Bill Robinson) on the sideline, but even non-reductive materialists.