
Richard E. Cytowic, *The Man Who Tasted Shapes: A Bizarre Medical Mystery Offers Revolutionary Insights into Emotions, Reasoning, and Consciousness*

Warner Books: New York, 1993 © Richard E. Cytowic

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The Warner Books back cover proclaims: 'In the tradition of Oliver Sack's [*sic*] bestselling *The Man Who Mistook His Wife for a Hat...*' The manner and misspelling signify that Cytowic himself had nothing to do with such publishing hucksterism. However, one thing is clear upon reading this book: Richard Cytowic, M.D., is no Oliver Sacks. Though, as will be seen, there is much in here to recommend itself, his stilted reproduction of conversations which or may not have taken place and his 'Creative Fiction 100' characterizations (i.e., Dr. Wood's continual inhalation of smoke or food) strike the experienced reader as painfully contrived, as though Cytowic were doing his level best to imitate Sacks and reach that always-elusive 'wider audience'.

On the other hand, as Cytowic describes his quest to make sense of his friend's synesthesia (the man for whom gustatory sensations were experienced as the contours, edges, textures, and surface temperatures of external objects), the reader is also drawn into the mystery. One sense experienced as another simply does not compute in our Newtonian each-thing-in-its-place universe. Along with Cytowic, the reader is made to wonder, 'How can this be?' Cytowic picks up clues along the way until he is led to 'seeing the primacy of emotion over reason; the impossibility of a purely "objective" point of view; the force of intuitive knowledge; and why affirming personal experience yields a more satisfying understanding than analyzing what something "means" ' (7).

Cytowic moves through the years inexorably but somewhat leisurely after these answers. At last, with the help of a thick caseload of personal testimonies and controlled tests, he narrows down the subjective nature of the experience enough to declare his conclusion that '*synesthesia is actually a normal brain function in every one of us, but that its workings reach conscious awareness in only a handful*' (166, italics in original text). Cytowic 'sees' (and perhaps smells, tastes, and hears!) synesthetes as 'cognitive fossils' (167) who still experience the senses united as did our mammalian forebears. For the rest of us, this continuing brain process has become unconscious. The key, for Cytowic is *emotion* which 'seems to reside at the interface between that part of our self which is accessible to awareness and that part which is not' (167).

It is when he examines the neurological evidence that his hypotheses are borne out. The climax of the detective work is reached when he gets his friend inside a regional cerebral blood flow scanner (CBF) where, with the help of a technical expert and doses of amyl nitrate (to accentuate his friend's synesthesia), he is shocked to

discover that as his friend experienced the deep pleasure of synesthesia in the machine his cerebral cortex appeared to shut down almost entirely. Simultaneously, his limbic system and hippocampal areas became riotously active. Against the linear 'standard view' of the brain, Cytowic announces that the limbic system has evolved in humans alongside the cortical system and has integrated itself into every area of the nervous system. In short, 'the limbic system forms an *emotional core* of the human nervous system' (157). Thus, emotion 'was no longer localized in a discrete control center but was spread out over pathways' (158). With this evidence, Cytowic concludes that even the nature of perceptions is largely determined by emotional valences and that such emotional elision of value is precisely what occurs in synesthesia. The emotional mind (as opposed to the logical, cognitive one) is the basis of human action and experience, according to Cytowic.

This is an important conclusion, if not all that original. What this means to consciousness studies and to the understanding of human life in general, Cytowic is not the slightest bit hesitant to tell us. In fact, such speculation appears to be the *raison d'être* of this user-friendly text and is the content of Part Two, 'Essays on the Primacy of Emotion'. Unlike another, more 'scientific', review of this book which I previously encountered, I quite disagree that these essays are 'irrelevant' to his research. Anyone who has worked so prodigiously in one area of study and comes to such startling conclusions has earned the right to ruminate on what it all implies. Cytowic reveals himself as a stimulating essayist, but, in the end, he proves to be not much better a philosopher than a literary artist.

Cytowic usually seems to consider our 'emotional mind' as non-conscious and this is a pivotal, if controversial, point. This implies our emotions are not subject to conscious volition and may explain why he feels the source of emotions to be somewhat mystical. He indicates that emotional valuation is necessary for any sort of mental consciousness to develop. He also shows that as learned adaptations become habit, both emotional charge and self-awareness decline or even disappear so behavior continues mechanically along. Cytowic calls upon the experimental literature on divided brains, the 'readiness potential', and neurological conditions such as prosopagnosia (wherein patients cannot recognize familiar faces but their galvanic skin resistance reveals definite physiological responses to those same faces) to demonstrate the primacy of the emotional mind — usually the right cerebral hemisphere. These examples clearly reveal a mode of experiencing *which is not conscious*, if we are to trust the first-person reports of the subjects. 'Our conscious self is the tip of an iceberg' (170), Cytowic asserts. He adds that 'recognition can be dissociated from conscious awareness of it' (212). The basis of our knowing is 'unconscious knowledge' and the basis of our perception is 'subception' (214). Here, Cytowic's case for the primacy of emotions sounds more like it supports the Freudian, the Jungian, or even the Darwinian unconscious rather than indicating any sort of transcendent spirituality.

The major problem of his essays is this: He makes an unwarranted leap from the primacy of the emotions into the strong anthropic principle and panpsychism, clearly revealing his bias for 'spiritual' explanations of human existence. He claims that terms like 'faith', 'God', and 'spirituality' are non-concepts which refer to ineffable experience. How emotional primacy indicates anything more than our ongoing connection with evolutionary processes escapes me entirely, as does the suggestion of concepts which are non-concepts. The terms he uses clearly *are* concepts, as rife with assumption and allusion as ever. Apparently by revealing the inefficaciousness of conscious intentionality, he feels he has simultaneously revealed our intuitive spiritual connection with all that is. This spiritual source is not self-evident.

Still, one may quibble too much. Cytowic goes to bat for emotions most effectively and his conclusions ring true that 'consciousness, language, and higher mental functions [are] the consequences of our ability to express emotion. Emotion is fundamental to mind and what we call consciousness' (196). Our emotional core is understood by most of us to be basically part of our organic heritage that can be altered by continued conscious experience. His 'faith', however, seems to pre-empt his seeing that our 'consciousness, language, and higher mental functions' almost certainly return the favour and affect our emotions in their turn. The brain works in cycles of mutual effect and affect. Indeed, many persons as they age and learn may well succeed in uniting the two 'minds' and creating conscious emotionality, i.e., they 'get in touch with their feelings'. This understanding of the potential of higher mental functions to change emotions (as well as being changed by them) may well help to explain why non-rational believers like Cytowic *feel* their emotions indicate a doorway to the infinite and eternal. It is worth considering that their cultural belief-system has predisposed them to values that generate, in turn, appropriate emotional resonance.

Greg Nixon
Prescott College