

Stirring things up

CREATING MINDS: AN ANATOMY OF CREATIVITY SEEN THROUGH THE LIVES OF FREUD, EINSTEIN, PICASSO, STRAVINSKY, ELIOT, GRAHAM AND GANDHI. H. Gardner. Basic Books, New York. ISBN 0-465-01454. Price \$15.00 (Paperback).

In *Creating Minds*, Gardner considers the personalities, contributions and impact of seven indisputably creative individuals from the 20th century: Freud, Einstein, Picasso, Stravinsky, Eliot, Graham and Gandhi. As tour guide to these great minds, Gardner is in his element, combining breadth of expertise and psychological acumen with delightful writing style.

Although Gardner's book is worth reading simply as a riveting introduction to seven towering figures of this century, its success ultimately depends on the common threads that he weaves throughout his analyses. These themes include: bridging qualitative (e.g., Gruber, 1982) and quantitative historiometric analyses of factors common to large groups of historical individuals (e.g., Simonton, 1994), approaches to creativity, multiple intelligences (Gardner, 1983), the importance of a close confidant at the time of a breakthrough, and the 'ten-year-rule', whereby at least ten years of in-depth training is necessary for a first breakthrough, with further breakthroughs at approximately ten-year intervals. However, here we focus on three themes we found especially provocative and perplexing.

One theme that permeates Gardner's book is the importance of some aspect of child-like thinking for creative discovery. Einstein, for example, is characterized as the 'perennial child', and is noted to have observed:

'... a normal adult never stops to think about ... space and time ... But my intellectual development was retarded, as a result of which I began to wonder about space and time only, when I had already grown up. Naturally I could go deeper into the problem ...' (p. 89).

Again, Picasso, when discussing children's drawing, observed:

'When I was their age I could draw like Raphael, but it has taken me a whole lifetime to learn to draw like them' (p. 145).

Although Einstein and Picasso provide direct evidence for the importance of a child-like perspective, Gardner also sees this theme evidenced in the lives of other individuals he considers: Freud focused on children's urges and dilemmas, Eliot maintained an appreciation for the offbeat and wrote playful poems for children, Stravinsky and Graham showed sensitivity to basic primitive rhythms, and Gandhi revealed child-likeness both bodily ('naked to the world, proud of his body') and mentally, with a political philosophy that emphasized simple maxims of fairness and equality.

The discussion of child-like thinking elicits a theoretical tension that typifies many of Gardner's themes. How, for example, do Stravinsky's tendency to pick fights and Gandhi's preoccupation with bodily function capture the same underlying creative dimension? Is it a very general sort of child-like temperament that is important? If so, then after ten years of in-depth training, child prodigies' unique combination of training and youthful temperament should lead to greater creativity. Yet Gardner argues that being a child prodigy may work against creative innovations that require '... a departure from the norm, that not even the most talented youth can fathom' (p. 380). Apparently, a youthful outlook facilitates innovation that youth itself may preclude. However, although experience is necessary for creativity, it too can be an obstacle to recognizing alternative approaches.

Although Gardner acknowledges the seeming contradictions, the reconciliation of these disparities is less than satisfying. Perhaps the unlikely pairing of these generally incompatible qualities explains the rarity of true innovation. Additionally, these attributes may only seem disparate until they are combined in the right person at the right time. A 'fresh perspective' when embodied in a child prodigy may produce mere naivety, whereas the same quality in the right adult may enable a certain irreverence, in which existing approaches are simultaneously understood and abandoned.

Gardner also suggests that personal imbalances (asynchronies) may well reflect a search for something really disquieting to struggle with. Like Dostoyevsky's Raskolnikov, who murdered because he believed that extraordinary individuals must transcend standard moral codes, readers may be tempted to seek personal asynchronies in their own lives, as Gardner suggests that such imbalances may be an ingredient of creative success.

At one level, Gardner's treatment of asynchronies seems tautological. Since true innovation requires challenging the status quo, it is difficult to imagine how one could be truly creative without causing some turbulence in the field. Thus, to suggest that 'each of our individuals stands out in the extent to which he or she sought conditions of asynchrony, receiving a kind of thrill or flow experience from being at the edge [of their field]' (p. 382), seems only to say that creative individuals seek to be creative. Nevertheless, this flirtation with circularity seems useful in depicting the type of conditions that may lead to innovations. For example, it is an intriguing suggestion that creativity may be enhanced by a marginal relationship between oneself and one's community, either through birth (e.g., Einstein and Freud's Jewishness, Graham's gender) or self-imposition (Eliot's emigration to Europe).

The importance of asynchrony is perhaps best illustrated by Gardner's discussion of the 'Faustian Bargain'. This theme should cause readers most personal asynchrony. As D. J. Schemo noted in a recent *New York Times* commentary, 'We come to believe the person capable of elevating the mundane acts of our lives, fitting them into the grander record of human existence must also possess a greater measure of wisdom'. Yet, Gardner compellingly documents the base qualities that strikingly contrast with lofty accomplishments: Freud's vindictiveness, Einstein's distant relationship with his family, Picasso's sadistic behaviour, Eliot's anti-semitism, Graham's extreme self-centredness and Gandhi's callousness toward his family. These glaring flaws suggest internal asynchronies, and demonstrate that great public accomplishments need not be accompanied by private virtue. However, Gardner further argues that personal inadequacies may actually be part of the bargain of being truly creative.

He offers sometimes disparate accounts of this 'bargain'. Sometimes unappealing personal qualities are viewed as an unfortunate by-product, resulting from lack of time for non-professional activities (as apparently with Einstein and Graham) or from a bloated ego that precludes adequate respect for others, and/or enables the individual to feel they can afford certain character flaws (as apparently with Picasso). Elsewhere, such qualities are described as actually facilitating accomplishment. It seems self-evident that those willing to sacrifice a rounded personal existence may gain a professional edge. However, in places Gardner suggests that unpleasantness may reflect more than simple single-mindedness of purpose, and may actually be a source of inspiration (e.g., in discussion of Picasso, Stravinsky and Eliot). Accordingly, creators' unpleasant streaks perhaps reflect an unwitting need to stir things up in order to harvest the products elicited by self-imposed asynchronies.

The suggestion that creative individuals' unpleasant streaks may feed their creative fires raises the question of how personal asynchronies facilitate creativity. Perhaps internal tensions cause angst that promotes restlessness and prevents complacency. If so, it may be possible to empirically 'test' the notion that creative individuals engage in unpleasant behaviours to maintain a critical level of angst. Accordingly, individuals whose lives were externally challenged (e.g., by bereavement; see Simonton, 1994) may not need to artificially maintain their angst level, and consequently might be pleasanter than their more 'fortunate' creative peers.

Gardner's book raises many interesting issues whose resolution will have to await future research. Although empirically oriented readers may wonder about the generalizability of his conclusions, the quantifiability of his dimensions, the representativeness of his sample, and who should be considered the appropriate comparison group, if Gardner's hypotheses are correct, such vexation may foster future creative insights.

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