

Puzzles, Grand Ideas, and Science

April 27, 2012

Digging into the history of psychological science, the Observer has retrieved classic interviews with prominent psychological scientists for an ongoing series Psychology (Yesterday and) Today. Each interview is introduced by a contemporary psychological scientist, and the full text of the interview is available on the Observer website. We invite you to reflect on the words of these legendary scientists, and decide whether their voices still resonate with the science of today.

Dave McClelland has been an intellectual hero of mine since I completed my dissertation in 1983. His model of motivation helped me form my hypotheses, and in 1986, I got to meet David when he interviewed me for a postdoc position. He did not disappoint, and he became a flesh-and-blood hero to me as well. I remember being amazed at the number of ideas he tossed around during our lunch. They seemed endless, and they all seemed empirically testable. I was fortunate enough to become his postdoc, and the years I spent in his lab were two of the most intellectually stimulating and enjoyable years of my life. During our time together, we (with Richard Koestner) wrote a now classic *Psychological Review* paper. With Richard and Carol Franz, we conducted several studies that were published in major peer-reviewed journals. My time with Professor McClelland shaped my career and the way I approach my work. It affected and continues to affect the way I think about psychological science. I am not alone. The list of people he influenced this way is quite long and includes many individuals who are prominent in the field.

To write this article, I reread his 1971 interview in *Psychology Today*. It showed me what had remained constant and what had changed from that time to later in David's career when I knew him. What stayed the same was that David was interested in aspects of personality that people typically could not articulate about themselves, but were nonetheless central to their functioning. He was interested in the inner person and what made people who they were. His book title, *Power: The Inner Experience*, captures his way of looking at psychological science. He also thought big. Simple experiments or studies were of less interest to him than grand ideas. But it always had to be empirically based. *The Achieving Society* attempted to explain nothing less than the rise and fall of civilizations through societally caused changes in personality variables. His work in India compared an experimental village with a control village to test whether motivational training could change economic productivity (it could and did). When I knew him, he was attempting to identify the hormonal substrate of implicit motives. He was looking for connections between the immune system and personality variables. It seems that no one conducts the kind of grand studies that David routinely carried out any more. We live in an age of small-bore studies.

Another thing that did not change about David was how ahead of his time he was. He championed the importance of unconscious processes well before, even decades before, they became accepted in the field. We called them 'implicit processes' in our 1989 *Psychological Review* paper. That terminology (also used by Dan Schacter) caught on, and it is still in use today. He chose the term after we received some criticism in an earlier draft for describing the processes as 'unconscious.' In the 1950s, he wrote

of measuring competencies rather than relying on standardized tests. This innovative idea is finally beginning to catch on now, more than 60 years later. The idea that immune functioning can be affected by psychological variables seems standard now, but it was quite controversial when McClelland posed it. He told me of arranging a meeting with a Nobel Prize winning Harvard biologist specializing in the immune system just to bounce around some ideas. The meeting came to an early end when the man declared that the immune system had no contact with any system related to human psychology. David pursued the idea anyway. As was often the case, it turned out that he was right.

Some things did change from the time of the *Psychology Today* interview to my time working with him. At the time of the interview, he believed that motives were completely learned and were only slightly below the awareness threshold. By the time I knew him, he came to believe that they had a biological and genetic component that could be affected by learning and that they were usually completely unconscious. He had moved to a more interactionist position concerning motive development and to a view of human functioning as more controlled by processes that arose outside of awareness. At the same time, he also became a bit more accepting of self-report variables. Early in his career, he thought very little of them. One of his papers was "Opinions Predict Opinions: So What Else is New?" (1972). By 1989, he argued that conscious self-reports, which he called "self-attributed," were orthogonal to implicit processes and predicted different outcomes. The data made him change his position, and thus, he became an early advocate of the view of parallel explicit and implicit processes that dominates the field today.

There was also the David McClelland I came to know. That he had enormous talent goes without saying. A simple listing of his accomplishments could use up all the words allotted to me for this piece. He was incredibly creative and open to any hypothesis. He was curious about everything. If an idea could be empirically examined, it was worthy of consideration. If it could not, it was still interesting to talk and think about. And who knows, maybe one day we'd figure out a way to test it. He had an uncanny ability to discern relationships in data that others could not see. One day, I was looking over a large data set and doing it systematically, one hypothesized variable at a time. He looked over my shoulder for a few minutes. He then told me to skip to a hypothesis that was about fifth on my list. I did so, and it was statistically significant. Amazed, I asked how he knew. He just laughed and walked away. He loved taking data home and poring over it. He would return having discovered relationships that none of us had seen. He would then run a second study attempting to replicate these findings so that he could believe them. I finally found out the developmental source of this ability. I learned that as a child, he would solve chess problems and publish the solutions in chess magazines. The skills he developed through solving these puzzles enabled him to discern solutions to problems and relationships in data that most of the rest of us could not find. It was not a coincidence, I suspect, that the first major motive he studied was achievement motivation.

Perhaps related to his love of puzzles, and certainly related to his interest in achievement motivation, David was also a successful entrepreneur. He co-founded a company called McBer that consulted with businesses and corporations. He had a home in Hawaii and raised exotic flowers there that he sold for profit. But he was not particularly interested in money. His business activities interested him because of the challenge they offered and the freedom they bestowed on him to pursue his passions. It was a pure case of achievement motivation.

David also had a powerful moral and spiritual side that may be unknown to many. He was a practicing

Quaker, having converted from his original Methodist upbringing. His work and travels to India deeply influenced him, and he became a great admirer of Indian culture, reading the Gita, and incorporating Indian ways into his life. He had spiritual teachers and wanted to investigate Eastern precepts.

Finally, David had a cranky side that I personally found endearing. He complained frequently about the wrong direction psychology was taking with its emphasis on self-report and attitudes. He thought that most of the interesting stuff took place beneath the surface, and he could not understand why everyone else did not see that. He felt that his work was not influential, and that he was like the proverbial David fighting the establishment Goliath. Pointing out to him that he chaired the department of social relations at Harvard for many years, that he and his work were world renowned, and that he therefore was the establishment, had no effect on these thoughts. He complained that his students often did not follow him into the study of motivation. But he encouraged originality and independence and would implicitly disapprove of others following up his work by tweaking studies and systematically enlarging the scope of previous studies. The flip side of this disapproval was a complete openness to ideas promoted by his students and colleagues. He would get excited by new and innovative ideas. He would encourage the work and provide the resources needed if he could. He would help shape the projects and sharpen the thinking behind them. And then he would be proud of the results, although that was not always obvious. Another idiosyncrasy was that he rarely told one of his students how well he thought of his or her work in any detail. He would tell another colleague or student, we would exchange the information, and that is how we would learn about what he thought of our work.

David was a complicated and multi-talented man. He was a great and thoroughly empirical psychologist who liked grand ideas and studies. He was a hard-nosed scientist, an entrepreneur, a spiritual man, and a curmudgeon. And he was a great mentor as well as a great person. We are unlikely to see anyone like him any time soon.