## The Remarkable Human Self

December 24, 2013

Roy F. Baumeister acknowledges that some researchers who ground their work in molecules, genes, or the neural architecture of the brain may not believe in the concept of the self. Scientists have learned enough about the brain to know that no central processing unit controls the numerous, simultaneous cerebral activities that help humans navigate their environments. If the brain operates as "an orchestra without a conductor," as APS Past President and legendary neuroscientist Michael Gazzaniga has put it — can we really believe in the unifying concept of self?

Yes, says Baumeister, an APS William James Fellow who is Francis Eppes Eminent Scholar and Professor of Psychology at Florida State University. In an Award Address delivered at the 25th APS Annual Convention in Washington, DC, Baumeister emphasized that the self is not part of the human anatomy, but rather a powerful interface between our animal bodies and the complex cultural systems in which we live. Without the concept of self, Baumeister reminded his audience, scientific analysis of social and economic processes would be all but impossible.

Since the time of William James, psychologists have marveled at humans' uniqueness among animals: their propensity to take on ethical responsibility, criticize their own actions, and make significant sacrifices for others' sake. The human self, Baumeister said, has evolved beyond the rudimentary awareness, experienced by many animal species, of a personal point of reference that serves as a target for resources like food and territory. Baumeister believes the human self is defined, first, by its ability to turn inward and engage in self-reflection; second, by its identity as an interpersonal being, partner, and group member; and, third, by its executive function as an agent that makes choices, exerts control, and engages in self-regulation.

## Surviving in a Special Way

Despite these extraordinary characteristics, the human self exists for the very basic biological purpose of survival and reproduction. It just happens that humans go about surviving and reproducing in a special way — namely, by participating in complex cultural systems that rely on language, accumulation of shared knowledge over generations, division of labor, and economic exchange. Within these systems, individuals must contribute, gain acceptance, and follow rules in order to thrive.

Given the tight interdependence between the evolution of human culture and the evolution of the individual human self, perhaps it is no surprise that striking evidence suggests groups of humans benefit enormously from the existence of the self.

"Most of social psychology's knowledge about optimal group functioning is based on differentiating the members — forming your own opinion, and performing your own role; being more responsible," Baumeister said. Accountability, division of labor, and the reasoned formulation of personal opinions

are all associated with optimal group performance.

Since the 1890s, when Norman Triplett showed that competitive cyclists achieved higher speeds when they shared the track than when they rode alone, a body of evidence has emerged supporting the idea that individuals perform best when they work in the presence of others — an effect, scientists believe, that is mediated in part by people's tendency to perform better when attention is called to the individual self's performance.

The "wisdom of crowds" is an example of how groups thrive when individuals think and act as independent selves. When a large number of individuals estimate a value (in Sir Francis Galton's famous 1907 experiment he asked people to estimate the weight of an ox), the average of their estimates is often very close to the actual value — sometimes even closer than any one individual's answer.

On the other hand, many classic social findings about suboptimal group performance involve situations in which individual selves become submerged in a group culture and fail to fulfill their potential. In 1913, for example, Maximilien Ringelmann discovered that individuals pulling on a rope as part of a team exerted significantly less effort than they did when they pulled on the rope as individuals. A modern version of this Ringelmann effect is *social loafing*, a phenomenon that occurs when people working in groups "slack off" because they assume someone else will take on important tasks.

Stereotyping, prejudice, and discrimination are also negative results that may occur when group identity trumps the identity of the self.

## **Identity Within the System**

That the self is, in practice, an imperfect mechanism, may be no surprise given its enormous complexity and the fact an individual's self literally takes years to develop. Baumeister's own research on how children play games sheds some light on this complicated process.

A baby, Baumeister said, may have an identity — a name, family history, and social security number — but the baby lacks a self.

"The process of growing," he said, "is learning to operate that identity within the system."

Games are one tool though which children develop selves as they grow. In a 1989 study, Baumeister asked hundreds of children between the ages of 2 and 15 to describe their favorite games. Then, he analyzed the results according to age. Very young children enjoyed role-playing games such as "house" and "dolls," which have few rules and are cooperative rather than competitive, suggesting that for young children, just learning to play a role is a significant challenge. Slightly older children — those around 8 years old — preferred tag, "duck, duck, goose," and other games in which players switch roles, follow rules, and engage in mild competition often based more on chance than on skill. Advanced games played by older children and adults (e.g., baseball, chess) require players to compete, master skills, and play complicated, stable roles that often involve subroles.

It was only years after conducting this study that Baumeister came to see what his findings suggest about the development of the self.

"The progression of games sort of suggests this process of the brain learning to operate an identity in a complex social system," Baumeister said. As children grow, they learn to take turns, contribute to team efforts, follow rules, accept credit and blame, and exercise executive function to make informed judgments. These are skills on which not only the individual children, but also the groups and cultures in which they live, will come to rely.

Baumeister views these developmental processes, along with their role in the self's larger contribution to cultural functioning, as evidence of the self's existence and importance as an object of scientific inquiry.

"Without selves, human society and culture would be impossible," Baumeister said. "The human self is a remarkable achievement, both collectively and individually, and it makes possible the human way of life."

## **References and Further Reading**

Aiello, J. R., & Douthitt, E. A. (2001). Social facilitation from Triplett to electronic performance. *Group Dynamics: Theory, Research, and Practice, 4*, 163–180.

Baumeister, R. F., & Senders, P. S. (1989). Identity development and the role structure of children's games. *The Journal of Genetic Psychology: Research and Theory on Human Development, 150*, 19–37.

Galton, F. (1907). Vox Populi. *Nature*, 75, 450–451.