

## Minds Meet in the Social Whirl

By BRUCE BOWER

Auguste Rodin's famous sculpture "The Thinker" portrays a naked man hunched over in contemplation, perhaps wondering when the artist will turn on the heat in his studio. A thinker chiseled into solitary confinement by his creator finds the world a chilly place, with or without a wardrobe. People ruminate on their own, of course, but mental potential surges most forcefully—for better and for worse—when we coalesce into groups of various kinds and sizes.

Rodin's singular creation aptly symbolizes much psychological research over the past 50 years. Although people are inveterate social animals enmeshed in a web of interactions, the study of social thought and behavior has consisted largely of laboratory tasks administered to (and often inflicted on) individuals. Volunteers who talk to one another during these tests have committed a big-time blunder; their responses are as "contaminated," in psychological lingo, as the soil beneath Chernobyl's nuclear reactors.

A different line of research promises to power psychology into a more sophisticated and challenging view of the mind. This approach goes by a number of names, including socially shared cognition, interactive minds, and transactive memory. Participants in this scientific movement want to understand thoughts and behaviors that emerge from the interactions of two or more people. Such an ambitious goal calls for experiments that focus on real social encounters in the most natural settings possible, using innovative research designs and statistical methods.

"In the last few years, there has been significant growth in studies of how people collaborate in processing information about matters that concern them," says psychologist Richard L. Moreland of the University of Pittsburgh. "More social psychologists are acknowledging that cognition can be a group, as well as an individual, activity."

Influential theorists have periodically championed the social nature of thought since the dawn of experimental psychology more than 100 years ago. However, rigorous investigations of the ways in which thinking occurs in pairs and larger groups have surfaced only recently.

One pioneer in this untrammelled realm, William Ickes of the University of Texas at Arlington, unobtrusively videotapes pairs of people having spontaneous conversations and then has each person review the tape twice, once to label his or her own thoughts and feelings at precise points and again to identify those of his or her partner. By comparing these responses, he measures the accuracy with which people empathically read each other's minds.

Ickes' technique could help revamp training in professions

that put a premium on empathic insight, such as psychotherapy and diplomacy. It's also attracting interest as a tool with which to test competing theories of how friendships and romantic relationships either fly or flounder.

Growing numbers of scientists are examining another underappreciated facet of socially shared cognition—memory. Daniel M. Wegner of the University of Virginia in Charlottesville stands at the forefront of this movement, having written about evidence for "transactive group memory systems" since 1985. According to Wegner, transactive memory in a group occurs when each member keeps up-to-date on who knows what, shuttles information on a topic to the group's expert in that realm, and develops a sense of the group's areas of expertise.

Research directed by Moreland since 1995 illustrates transactive memory's power. In one study, experimenters trained volunteers to assemble transistor radios from 60 separate parts on their own or in three-person groups. About a week later, groups of three attempted to put together a radio. The groups whose

members had trained together recalled more about the assembly procedure and produced better-quality radios than groups whose members had trained separately (as is often the case for workplace teams organized to perform specific tasks). Moreover, group training led to greater specialization by each member in distinct assembly tasks, more fluid coordination of the assembly process, and increased trust among group members in one another's knowledge about radio assembly, Moreland asserts.

An emphasis on socially shared cognition also sheds light on capacities that, unlike memory, attract scant scientific attention. Consider wisdom. Investigations directed by Ursula M. Staudinger and Paul B. Baltes of the Max Planck Institute for Human Development and Education in Berlin find that people provide more helpful, wiser advice on tricky social dilemmas—such as what to say to a friend who confides his decision to commit suicide—when allowed to collaborate on a response with a spouse, friend, or relative.

Other researchers, such as Marilyn B. Brewer of Ohio State University in Columbus, are beginning to explore how each person's self-concept—traditionally viewed as a monolithic, internal sense of one's identity and core traits—shifts from one social context to another. For instance, a teenager may define himself or herself consistently in terms of teacher expectations while in class, friends' values when hanging out after school, and family codes and customs when at home. Exploration of how the self-concept transforms in response to social groups' divergent standards may help to clarify personality and character development.

"We're poised on the brink of a big breakout in studies of socially shared cognition," comments Ickes. "It promises to move our research focus outside of individual minds and into the [interdependent] space in which minds attempt, and often fail, to meet." □



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FIRST ISSUE OF  
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**1922**  
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**1922–1925** Dinosaur eggs discovered

**1923**  
Identification of  
tooth-decaying  
germs

**1923**  
Theories of acids  
and bases  
developed

**1923**  
Fourth vitamin (E)  
identified

**1924**  
Recognition of stars far  
beyond our galaxy

**1925**  
Founding of  
behaviorism

**1925**  
Unearthing of Taung  
skull, from an  
ancient human  
ancestor

**1923–1927** Quantum mechanics developed