

Where Are You?

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“What are you thinking?” It’s a simple enough question on the surface, and not an uncommon one, especially for intimate partners to ask of one another. Humans have a powerful need to know what others believe at every moment, what they want, what they’re intending to do.

It would become tiresome of course if we asked these questions all the time. Which is why most of the time we try to surmise others’ mental states. Indeed, we spend a huge chunk of every waking day theorizing about others’ minds, and we assume we’re pretty good at it. But how does this process really work? Is it reliable? What’s going on in the brain when we attempt to divine other people’s private thoughts?

Surprisingly little is known about this fundamental human skill, though there are theories. One prevailing notion is that mind reading is automatic and fast, requiring no contemplation. According to this theory, a separate brain module is unconsciously and constantly “parsing” the behavior of friends and lovers and colleagues, even strangers, effortlessly arriving at plausible beliefs. In other words, we think about other’s beliefs even when we have no reason to do so.

Scientists at England’s University of Birmingham decided to explore a part of this theory in the laboratory. In order to simulate real-life reasoning, and to see just how automatic mind reading really is, psychologist Ian Apperly and his colleagues devised a simple task. They had volunteers view a video enactment, in which a man hides an object — a doll, say — in one of two boxes. A woman in the video subsequently points to the box where the doll was hidden, indicating that she believes correctly that the doll is there. Volunteers then have to find the doll.

Don’t laugh. I know this seems hopelessly simplistic, but the point of the exercise isn’t really to find the doll. The point is to create a rudimentary “reality” and a rudimentary “belief” about that reality. As a volunteer viewer you know where the doll is hidden; that’s the reality. But you must also construe whether the woman’s belief about the situation is true or false.

There’s more. The woman now leaves the room, and in her absence the man switches the boxes. I know, sneaky beyond belief. When she returns, the volunteers are asked, first, where the doll is and, second, where the woman believes the doll is. Once again, the challenge is not keeping track of the doll, which everyone can do flawlessly. The question is whether the volunteers can track the woman’s beliefs as rapidly as they track the shifting reality.

So timing is the issue. Apperly and his coworkers put the volunteers on the clock, measuring precisely how long it took them both to reassess the shifting facts and to reassess the woman’s shifting sense of things. If indeed the brain has a module that automatically and rapidly forms theories about others’ thinking, these times should be the same. As rapidly as they process the doll’s new location, that is how rapidly they should process the woman’s (now mistaken) belief.

The times were not the same. We're talking fractions of seconds, but as reported in the October issue of the journal *Psychological Science*, it took significantly longer for most people to process beliefs than it did for them to process simple facts. What's more, volunteers who were told ahead of time to keep track of the woman's shifting beliefs were able to do so, almost immediately, but they did not do it without prodding.

There is a long debate about whether theorizing about other people's minds is a uniquely human mental skill. There is also debate about whether certain cognitive disorders, like autism, reflect in part a disability in such theorizing skills. This study won't resolve those issues, but it does suggest that for most of us, reading others' beliefs is not innate, primal, automatic. It may instead be part of the more modern deliberative brain that crunches information and computes answers. Which may explain why we so often have to ask: "Where are you? What are you thinking?"

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