

Anyone can read minds¹

Notice how when we know someone very well, especially someone we dearly love, or even someone we are close to, we are almost sure that we know what that person is thinking or feeling. Often enough, when we are really close to that person, we would also feel how he or she feels: we empathize with that person.

Empathy allows us to feel and see things from another's perspective. However, how we empathize remains a subject of intense debate in cognitive science. Some scientists now believe that they may have finally discovered the root of empathy. They claim that we're all essentially mind readers – and the evidence for this is growing.

In the 1980s, a group of Italian neurophysiologists at the University of Parma, placed electrodes in the ventral premotor cortex of a macaque monkey to study neurons that specifically control of hand and mouth actions. The cluster of cells fired not only when the monkey performed a task, such as eating something but also when it saw the same action performed by someone else. The cells reacted in the same way whether the monkey reached out to grasp a peanut or merely watched as another monkey or a human did so.

The cells reflected the actions that the monkey observed in others. Hence, the neuroscientists named them “**mirror neurons**.”² Further experiments confirmed the existence of mirror neurons in humans and revealed another surprise. Besides mirroring actions, the cells also reflected sensations and emotions.

“Mirror neurons suggest that we pretend to be in another person's mental shoes,” says Marco Iacoboni, a neuroscientist at the University of California, Los Angeles, School of Medicine. “In fact, with mirror neurons we do not have to pretend, we practically are in another person's mind.”

The discovery of mirror neurons helps us better understand a broad range of psychological conditions, including certain mental disorders. Mirror neurons, for example, may help scientists explain how children develop a theory of mind (ToM), which is a child's understanding that others have minds similar to their own. This may help us better understand autism.

Since the mid-1980s, developmental psychologists have proposed various theories to explain how ToM develops. The best-known ones are the “theory theory” and the “simulation theory.”

Theory theory describes children as taking their own “perspectives” of others, even if they are naive ones. Apparently, they detect signs, by way of gestures and expressions, and use their everyday understanding of people to develop theories that explain and predict the mental states of those coming into contact with them. In other words, this is a child's perspective of others.

¹ This reflection is inspired by Ker Than's “Scientists say everyone can read minds,” 27 April 2005: <http://www.livescience.com/220-scientists-read-minds.html>.

² https://en.wikipedia.org/wiki/Mirror_neuron.

According to **the simulation theory**, we are natural mind-readers. We put ourselves in another person's "mental shoes," and use our own mind as a model for theirs.

Vittorio Gallese, a neuroscientist at the University of Parma, Italy, contends that when we interact with someone, we do more than just observe the other person's behavior. We create our own representations of their actions, sensations and emotions, as if we are the ones that are acting, sensing or feeling.

Many scientists believe that mirror neurons embody the predictions of simulation theory. "We share with others not only the way they normally act or subjectively experience emotions and sensations, but also the neural circuits enabling those same actions, emotions and sensations: the mirror neuron systems," Gallese told *LiveScience*.

Gallese cautions that the two theories are not mutually exclusive. If the mirror neuron system is defective or damaged, and our ability to empathize is lost, the watch-and-guess approach of theory theory may be the only option left. In fact, some scientists think that this is what happens in autistic people, whose mental disability prevents them from understanding the intentions and motives of others.

They think that the mirror neuron systems of autistic persons are somehow impaired or deficient, resulting in "mind-blindness," which prevents them from simulating the experiences of others. For autistic individuals, experience is more seen than lived, and they are unable to appreciate how we think or feel. They merely guess the mental states of others through perceiving a list—mechanical and impersonal—of actions, gestures and expressions void of motive, intent, or feeling.

An experiment by psychology professor Hugo Theoret and colleagues at the University of Montreal showed that mirror neurons normally active during the observation of hand movements in non-autistic individuals are inactive in the autistic. "You either simulate with mirror neurons, or the mental states of others are completely precluded to you," said Marco Iacoboni of the University of California at Los Angeles.

What is especially valuable and interesting here is that science is beginning to provide us with empirical evidence that we can and do read minds. In the early Buddhist texts, the ability is included in those who, having attained the 4th dhyana, awaken as arhats.³

The Māna-t,thaddha Sutta (S 7.15), for example, records how the Buddha, by "knowing, with his own mind, the thoughts in the brahmin Māna-t,thaddha's mind," says just the right words to correct the person's perception and inspire faith and wisdom in him.⁴

The Buddha's powers, of course, go far beyond merely mind-reading. He is able to know even from some distance when another person is ready for the path of awakening. Such encounters can be dramatic, such as that with the serial killer, Aṅgulimāla,⁵ or idyllic, such as with the cowherd, Dhaniya.⁶ In other words, the

³ See eg **Sāmañña,phala Sutta** (D 2,93.2), [SD 8.10](#); **Kevaḍḍha Sutta** (D 11,6-7), [SD 1.7 \(1.4\)](#); [SD 27.5a \(5.5.5\)](#).

⁴ S 7.15/1:177 f ([SD 50.36](#)).

⁵ **Aṅgulimāla Sutta** (M 86), [SD 5.11](#).

⁶ **Dhaniya Sutta** (Sn 1.2), [SD 50.20](#).

Buddha is very skilled and effective in teaching the Dharma to others and bringing them to the path of awakening.

On the other hand, the Buddha also reminds us that: “If one is not skilled in knowing another’s mind, then one should cultivate the skill in knowing one’s own mind. This is how you should train yourself.” (A 10.51).⁷ In other words, even if we are unable to read the minds of others, the Buddha advises that we should at least be able to read our own!⁸

R557 Simple Joys 346
Piya Tan ©2018

⁷ A 10.51/5:92 ([SD 5.13](#)); see also [SD 27.5a \(8.5\)](#).

⁸ **Parihāna Sutta** (A 10.55,5) [SD 43.5](#).