

assume things we don't understand have happened for a reason. This reasoning has been observed very early in infancy, and it is thought to arise as a result of children accumulating embodied experiences and beginning to recognize that other persons are "like me." This leads to the cognitive mapping of the bodies of others onto an infant's own via the mirror neuron system, resulting in the imitation of others' actions (Rizzolatti and Craighero 2004; Kaysers, Thioux, and Gazzola 2013; Wightman 2015, 17–23). Infants also map the relationship between their own bodily actions and mental experiences back onto the actions of others and begin to develop the ability to attribute intention to those actions (Meltzoff 2011; Kim and Song 2015). Within the first year of life, infants begin to attribute goals to unfamiliar and inanimate objects, and to infer unseen and unknown causes and agents based on the perception of intentionality in a variety of environmental cues and conditions (Luo and Baillargeon 2005; Moriguchi and Shinohara 2012; Muentener and Schulz 2014). This teleological outlook stays with us throughout adulthood (Kelemen and Rosset 2009; Kelemen, Rottman, and Seston 2013; Järnefelt, Canfield, and Kelemen 2015), and when we combine it with our hypersensitivity to the presence of agents, we are embedded in a world potentially teeming with intentional agents that we do not see, but that may be responsible for any number of unexplained circumstances, entities, or events.

Predictive coding is a feature of cognition that may stimulate the mental representation of novel agents.⁵ Inferring the nature of hidden or unknown causes in our environment most often involves projecting known patterns and values. These inferences are likely to include known agents where the available stimuli are symptomatic, according to our experiences, of their presence. Our minds are open to the possibility of encountering previously unknown agents, however, so our existing expectations can be revised in terms of scale, intensity, distance, and other properties based on variations in the stimuli. To illustrate, Tommaso Bertolotti and Lorenzo Magnani (2010, 253) suggest the following thought process could underlie the intuitive response to a person seeing some rocks falling:

1. An animal climbing on a cliff causes some gravel and rocks to move and fall when it treads over them.
2. *Hence, falling rocks are likely to be symptomatic of an animal stepping up hill.*
3. I notice rocks falling down.
4. *Therefore, I must be in presence of an animal stepping uphill.*

A similar physical event, but with a significant shift in magnitude, may be interpreted according to this experience, but with a similar shift in magnitude.

⁵ Some scholarship has argued that overreliance on content biases and not context has distorted the findings of the cognitive science of religion (Gervais and Henrich 2010).