

Understanding death as the cessation of intentional action: A cross-cultural developmental study

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Introduction

Taken together, the developmental literatures on children's understanding of intentional action and on children's understanding of death present a sort of paradox: while the former literature shows that even very young children have an intuitive grasp of the goal-directed nature of behavior that characterizes animate, living things, the latter seems to show that children do not realize until a much later age that the capacity to act intentionally ceases irreversibly when an organism dies. From an adaptationist perspective, this is perhaps surprising, given the potential adaptive value of being able to judge the capacity or incapacity of an animal to act, and perhaps to do harm. In many states which are characterized merely by a lack of motion – sleep, for example – an animal may still wake up and attack. When dead, however, it cannot. It may thus be adaptive for young children to understand that death, as opposed to sleep and other states of temporary inaction, entails the permanent cessation of the capacity for intentional action. And, given that an intuitive grasp of the capacity for intentional action in animate living things exists at a very young age, it should be available to serve as a conceptual substrate for an early understanding of death.

Study design

The present study was designed to probe for an understanding of death as the cessation of the capacity for intentional action by comparing judgments of 3 to 5 year old children about hypothetical dead and sleeping animals (human and nonhuman). Children were first asked questions about an awake animal, then about the same animal either asleep or dead. The target questions required children to judge whether the sleeping or dead animal would be capable of movement in general or in response to being touched, awareness of an external stimulus (someone moving nearby), and / or of having an emotion. The intentional action theory of death understanding predicts that children will exhibit the clearest understanding of death in response to questions involving movement and movement in response to stimulus, as opposed to questions that do not involve intentional action (e.g., awareness only). There was no predicted lower bound on the age of emergence of reasoning abilities probed here.

The study was conducted in two parts, both using the same interview procedures and questions. The first part of the study was conducted with 70 preschool and kindergarten children, age 3 to 5 years, in Berlin, Germany. The second part of the study was conducted with 70 Shuar children, age 3 to 5 years, in six small rural villages in the Amazon region of Ecuador. Because these populations vary widely both in exposure to various kinds of cultural and environmental input (e.g., television and films, direct contact with animals, personal experience with death), they were selected for comparison to determine whether the development of the kind of understanding of death probed here depends significantly on cultural inputs such as television, and / or aspects of personal experience such as contact with animals or firsthand experience with death. Parents in both populations were surveyed about relevant experiences of their children which might have influenced understanding of death, such as religious background, exposure to representations of death on television, and personal experience with death of animals or people.

Results

Both Shuar and German children demonstrated an understanding of death as the cessation of the capacity for intentional action by the age of 4. By this age, the large majority of children clearly distinguish sleep from death in this regard. In addition, many of these children understand that the capacity for subjective experience independent of action ceases in death as well, though performance on these questions, as predicted, was not as high at this early age as performance on questions involving intentional action.

The results of the study show that by age 4, children understand at least one aspect of death which is crucially important from an adaptive perspective: dead things can no longer act. Although this result stands in contrast to much of the developmental literature on death understanding, which suggest that children's understanding of death at this age is poor, it is consistent with a view of cognitive development which holds that development has been shaped by a history of selection for adaptive reasoning and decision making abilities.