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Do humans have intuitive theories of time?

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Abstract

Children have intuitive theories of several conceptual domains, but it is unknown if adults' common sense beliefs about time reflect an intuitive theory. Here, in an online survey, 165 3- to 6-year-old children judged whether 13 time-related phenomena (e.g., the future, going back in time) were real or not real and provided confidence ratings for their judgments. Beforehand, parents provided their own responses to the same items and predicted their children's responses. As early as age 3, children's responses to most items resembled those of adults. Children's responses to past-related items (e.g. changing the past) were more similar to adults' than were their responses to future-related items (e.g., changing the future). Parents predicted their children's responses with high accuracy. These results suggest that many, but not all, adult beliefs about time emerge early in development, and may be part of an intuitive theory.