

UC SANTA BARBARA

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## Introducing Diversity

Babies learn the difference between “us” and “them” fairly early in life. Social categorization — the process of dividing the world into groups based on features such as gender, race and nationality — can be a useful strategy when you’re new to the world and trying to process a flood of information with your developing brain, according to UC Santa Barbara developmental, evolutionary and social psychologist [Zoe Liberman](#).

The act of creating groups — for instance, all the objects that can be categorized as some type of chair — serves as an efficient learning tool for minds still learning to grasp the world around them. But what starts out as a useful survival behavior in our early lives could become a problem when it is applied to people: The tendency to form groups and to like people who are more familiar can lead to stereotyping, bias and racism.

What if there was a way to dampen the tendency toward harmful tribalism? With an Early CAREER Award from the National Science Foundation, Liberman, an assistant professor in the Department of Psychological & Brain Sciences, is poised to lay the groundwork for a better understanding of how stereotypes form in children’s brains — work that could inform future interventions aimed at mitigating the negative impacts of stereotyping.

“I congratulate Zoe on this recognition, which reflects the tremendous potential of her innovative research on the origins of human social behavior,” said Pierre Wiltzius, dean of mathematical, life and physical sciences at UC Santa Barbara. “Her

work illuminates how we form relationships from the very early stages of cognitive development, and I look forward to her continued success.”

“I’m honored to receive the CAREER award, which is funded jointly by three of NSF’s Programs: Social Psychology, Developmental Science, and the Science of Broadening Participation, highlighting the interdisciplinary nature of my research,” Liberman said. “Given how competitive these awards are, it feels fantastic to have importance of this work be recognized!”

## **Diversity Exposure**

“A lot of research has shown that expectations that group membership matters really does emerge early, even in infancy,” Liberman said. But sorting people, particularly unfamiliar people, into groups can be damaging if all the people in the group are presumed to have the same unfavorable characteristics simply for being in that cohort. Fortunately, some studies have shown that favorable interactions with someone from an unfamiliar group can improve attitudes toward other members of the group. However, it isn’t feasible to interact with members of all groups.

This is where Liberman’s work comes in: Her research asks whether exposing young children to diversity more broadly (as opposed to one specific unfamiliar group), may also reduce the reflexive reliance on categorization.

“The idea is that potentially growing up in a neighborhood or network that has people from different kinds of groups might make you more open to thinking that these categories aren’t as meaningful,” she said.

To accomplish this requires a measure of diversity exposure, a novel metric that Liberman will develop and use to see whether differences in exposure to diversity are related to differences in stereotyping.

“The measure is based on classic work from information theory and calculates entropy: scores are higher when more groups are represented and when groups are represented in relatively more equal proportions,” she explained. “We will measure diversity of neighborhoods using Census data, and of social networks using a parental survey.”

Liberman's efforts will involve working with infants, young school-aged kids and their parents in a bid to understand how the children use "group cues" of race and language to categorize people, and whether that usage changes with the differences in diversity in their communities. For instance, infants can already identify potential allies and strangers by language even before they can speak; would growing up in a multilingual environment affect their attitudes toward speakers of other languages?

"One question that I'm very interested in and that I think this research is starting to answer," she said, "is about how, if there are individual differences such that children who are exposed to more diversity are less likely to form group biases, could we figure out ways to give kids these kinds of experiences, and would that have long lasting effects on the development of bias?"

Liberman, who joined the UC Santa Barbara faculty in 2016, received her doctoral degree in Developmental Psychology from the University of Chicago. She was named a [Rising Star](#) by the Association for Psychological Science in 2017.

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