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The effects of collaboration and minimal-group membership on children's prosocial behavior, liking, affiliation, and trust

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ABSTRACT

Recent theoretical work has highlighted potential links between interpersonal collaboration and group membership in the evolution of human sociality. Here we compared the effects of collaboration and minimal-group membership on young children's prosocial behavior (i.e., helping and resource allocation), liking, affiliation, and trust. In a design that matched as closely as possible these two ways of connecting with others, we showed that 5-year-olds' behavior was affected similarly by collaboration and minimal-group membership; both increased children's preference for their partners on multiple dimensions and produced overall effects of a similar magnitude. In contrast, 3.5-year-olds did not have a strong preference for either collaborators or minimal in-group members. Thus, both collaboration and minimal-group membership are similarly effective in their influence on children's prosocial behavior and social preferences.

Introduction

In our everyday lives, we feel connected to other people in various ways. Even with a stranger, we are, in some circumstances, able to experience being a "we," a special connection that can make us

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prefer this person over others and treat him or her more positively. There are at least two ways of creating this connection. One way is by collaborating with that person to achieve a shared goal (e.g., jointly navigating the way to a conference hall with a stranger you just met outside). Various fields of research have shown that in adults, collaborative efforts enhance group cohesion and positive evaluations of collaborators, for example, in the context of economic games (Kuwabara, 2011), virtual interactions (Park & Seo, 2013), and therapy groups (Golden, 2000).

A second way of creating a connection with a stranger, even without any direct interaction with that person, is by recognizing that both of you belong to the same social group (e.g., seeing a stranger at the conference who is wearing a T-shirt with the emblem of your university). Indeed, adults are biased toward their in-group, favoring members of groups they belong to over members of groups they do not belong to (e.g., Brewer, 2007). This is true even when the groups are novel, based on arbitrary criteria, and created in laboratory settings (Brewer & Silver, 1978; Locksley, Ortiz, & Hepburn, 1980; Tajfel, 1970; Tajfel, Billig, Bundy, & Flament, 1971). Reviews and meta-analyses show that the so-called minimal-group paradigm, in which participants are assigned to arbitrary groups randomly, (e.g., by flipping a coin), evokes reliable preferences for strangers that belong to the in-group compared with the out-group (Brewer, 1979; Mullen, Brown, & Smith, 1992).

Theoretical work from social psychology also suggests that collaboration and group membership are both ways to connect with a stranger in a special way (Lickel, Hamilton, & Sherman, 2001; Lickel et al., 2000). In addition, theoretical work from evolutionary psychology has proposed a link between collaboration and group membership in the context of human evolution. Tomasello, Melis, Tennie, Wyman, and Herrmann (2012) proposed that collaboration and group membership emerged sequentially in human evolution and have a common basis. First, early humans lived together in small social units and needed to hunt collaboratively in order to acquire sufficient food. The members of these units, therefore, were highly interdependent and so were interested in the well-being of their fellow members because they needed to ensure that they would be available for future collaboration. This resulted in prosocial acts toward collaborative partners. Later in human history, societies became too large for individuals to be familiar with all group members, although group members were still, more generally, interdependent with each other. Therefore, individuals could no longer rely exclusively on personal experience when faced with potential social partners but instead needed to rely on observable group markers to infer who was likely to be trustworthy and able to coordinate with them. According to this perspective, both collaboration and group membership are thought to produce similar outcomes: prosociality toward and preferences for collaborative partners and in-group members, respectively, with interdependence as the common basis.

In children, the effects of collaboration and group membership have so far been studied separately. Research on collaboration has shown that by 14 months of age, children begin to engage in collaborative activities with adults, with more robust collaborative abilities (including with peers) appearing at around 2 years of age (Brownell & Carriger, 1990; Brownell, Ramani, & Zerwas, 2006; Warneken, Chen, & Tomasello, 2006; Warneken & Tomasello, 2007). Several studies have shown that 3.5-year-olds support their collaborative partners by helping and waiting for them (Gräfenhain, Carpenter, & Tomasello, 2013) and by sharing the spoils of collaborative activity equitably (Hamann, Warneken, Greenberg, & Tomasello, 2011). They also continue to collaborate to ensure that their partner obtains his or her reward even if they themselves have already gotten theirs (Hamann, Warneken, & Tomasello, 2012). Thus, there is some evidence that young children behave prosocially toward their collaborative partners, at least within the collaborative activity itself. However, it is not clear from this work whether collaboration evokes a more general preference for the collaborative partner and whether children would also be helpful toward people with whom they have previously collaborated. No studies to our knowledge have shown that children's prosocial tendencies toward collaborators extend beyond the initial collaborative activity to different unrelated situations.

There has been far more research on children's preferences for group members. Many studies have shown that preschool children prefer members of their language (Kinzler, Dupoux, & Spelke, 2007; Kinzler, Shutts, Dejesus, & Spelke, 2009), gender (Martin, Fabes, Evans, & Wyman, 1999; Shutts, Kinzler, McKee, & Spelke, 2009), and (to some extent) racial in-groups over out-groups (Kinzler & Spelke, 2011; Kinzler et al., 2009). Although it is possible that the findings in those studies can be explained by children's greater familiarity with the in-group (Ziv & Banaji, 2012), other research