On the relationship between cultural diversity and creativity in education: The moderating role of communal versus divisional mindset

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ABSTRACT

We conducted an experimental study with the aim of testing certain conditions under which engaging with cultural diversity increases creativity among schoolchildren. Results obtained from a sample of 149 Italian elementary schoolchildren revealed that engaging with cultural diversity, operationalized by asking Italian children to work with immigrant children on a cooperative task, led to an increase in creativity. Furthermore, we found that this effect was only present when a communal but not a divisional mindset (emphasizing group distinctions) was present. We discuss theoretical and practical implications of findings.

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Creative products are novel and useful (Amabile, 1983), and creativity emerges when people think in a flexible or persistent way (Schank & Abelson, 1977; for a review, see Nijstad, De Dreu, Rietzschel, & Baas, 2010) and are highly motivated (Amabile, Hill, Hennessey, & Tighe, 1994). Creativity is essential in organizations (Lombardo & Roddy, 2010), and the fostering of creative thinking in some educational systems, such as in England, is encouraged from a young age (Education, 1999). Recent evidence suggests that creativity can be encouraged through social diversity (Crisp & Turner, 2011), but while well tested in adult population, this idea is yet to be investigated with regard to schoolchildren. The aim of this study was to examine whether diversity increases creativity among schoolchildren, and what boundary conditions may eventually prevent the positive effects of diversity on creativity.

1. Diversity and creativity

Diversity disrupts the extent to which people use stereotypes and cognitive schemas during problem solving (for reviews, see Crisp & Turner, 2011; Gocłowska & Crisp, 2013), allowing people to engage in more generative thought (Gocłowska, Crisp,

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& Labuschagne, 2013). It can also increase the amount of ideas that are available for input (Leung & Chiu, 2010), and helps individuals to see the same problems from multiple perspectives (for an overview see Leung, Maddux, Galinsky, & Chiu, 2008; Tadmor & Tetlock, 2009).

The benefits of diversity have been observed across various levels of analysis. Archival studies indicated that the influx of foreign ideas and people stimulated country-level innovation two generations later (Simonton, 1997), and that eminent individuals, more often than their contemporaries, came from immigrant families, or have themselves experienced migration (Simonton, 1997). A study of 20th century eminent personalities found that 20% of the analyzed creators were either first- or second-generation immigrants (Goertzel, 1978). And although foreign-born individuals comprise only 13% of the U.S. population, they account for 30% of all the patents granted, and for 25% of all the U.S. Nobel Laureates (Peri, 2012).

In cross-sectional studies biculturalism (Tadmor & Tetlock, 2009), bilingualism (Benet-Martinez, Lee, & Leu, 2006) and even membership in multiple social groups were associated with greater creativity (Steffens, Gocłowska, Cruwys, & Galinsky, 2016). For instance, the ideas of bicultural individuals (vs. those who identify with one culture only) tend to be more novel and original (Fee & Gray, 2012; Kharkhurin, 2011; Tadmor, Galinsky, & Maddux, 2012), their negotiation solutions are more creative (Maddux & Galinsky, 2009), and their work performance is rated as more innovative (Tadmor et al., 2012).

In experimental studies, thinking of diverse individuals (e.g., gender counter-stereotypes, Gocłowska et al., 2013) and exposure to symbols and ideas from multiple cultures were found to elicit greater creative performance (Leung & Chiu, 2010). Finally, longitudinal research has confirmed that the effects of social diversity on creativity are causal: international aid workers from Australia and New Zealand, who were delegated to work in another country (measured against the pre-departure baseline, and against non-expatriates), experienced an increase in creative ability 12 months following departure (Fee & Gray, 2012). Taken together, these studies suggest that engaging with diversity can lead to enhanced creative performance (see Crisp & Turner, 2012; Gocłowska & Crisp, 2015 for reviews). These findings generate Hypothesis 1: that diversity in an educational classroom promotes pupils' creativity.

1.1. Moderators of the diversity-creativity link

It is important to note that despite the growing support for a diversity-creativity link, the effects of diversity are not unmoderated. For instance, diversity is less likely to benefit creative idea generation when need for structure is high (Gocłowska, Baas, Crisp, & De Dreu, 2014; Gocłowska & Crisp, 2013), when people are closed for new experiences (Leung & Chiu, 2008), hold negative diversity beliefs (Homan, van Knippenberg, Van Kleef, & De Dreu, 2007) or feel pressured for time, or threatened (Leung & Chiu, 2010). In addition, a social categorization perspective on diversity would argue that similarities and differences between group members, that are used to categorize self and others into "us" and "them," can disrupt the beneficial effect of social diversity. This is because people typically like and trust ingroup members more than outgroups members (Brewer, 1979; Tajfel, 1982; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), and a perception of salient intergroup divisions may lead them to take a more resistant and defensive stance, a "divisional mindset" that undermines cognitive functioning (Richeson & Trawalter, 2005; van Knippenberg, De Dreu & Homan, 2004). Such a divisional mindset, which is focused on group distinctions, may disrupt the beneficial effects of diversity, by activating intergroup differentiation processes which are at odds with the original way of thinking prompted by diversity. Because of this, the salience of diversity faultlines, that is, clear intergroup divisions, may block the beneficial effects of group diversity on creativity. We therefore posit Hypothesis 2a: we should observe greater creativity when a communal mindset (which does not mention group differences) is salient, and Hypothesis 2b: that exposure to diversity will not produce more original ideas when a divisional mindset is activated.

2. The present research

The aim of this study was to test whether diversity promotes creativity among children (Hypothesis 1), and whether this positive effect of creativity would be observed when a communal (Hypothesis 2a) but not when a divisional mindset (Hypothesis 2b) is salient. To test these hypotheses, we ran an experimental intervention with Italian elementary school children, assigned to work in diverse cultural groups (together with immigrant peers), or in homogeneous groups (composed only of Italians) on a cooperative task requiring them to create a story. Orthogonal to the diversity manipulation, we manipulated the prevailing mindset. Participants in each small group were asked to imagine being affiliated to one of two distinct minimal categories (thus activating a divisional mindset focused on group differences), or co-operating with one another within the same minimal group (thus activating a co-operative, communal mindset, where group distinctions were less salient). Children took part in three intervention sessions; one week after the last session, they were administered a measure of creativity (i.e. originality).