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The role of parents' and teachers' beliefs in children's self-concept development

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ABSTRACT

This study examined to what extent parents' and teachers' beliefs about children's abilities predict children's self-concept of math and reading ability development during the first grade, and whether these predictions depend on the child's gender and level of performance. One hundred fifty-two children and their parents and teachers were followed across first grade. The results showed, first, that the associations between teachers' beliefs and children's subsequent self-concept of ability depended on the level of the children's performance. Among high-performers, the higher the teachers' beliefs about their students' abilities in reading or in math, the higher the subsequent level of self-concept of ability. Among low-performers no association was found between teachers' beliefs and students' self-concept of ability in either reading or math. Second, mothers' and fathers' beliefs were not predictive of children's self-concept of math and reading ability during first grade. Overall, these results suggest that during the first grade it is teachers' rather than parents' beliefs, that play a role in children's self-concept of ability. In teacher education, emphasis should therefore be placed on the importance of supporting children's developing self-concept as well as teaching new academic skills.

Previous research has consistently shown that students' self-perceptions, such as their self-concept of ability, direct their behavior and effort in learning situations (e.g., Atkinson, 1964; Bandura, 1986; Eccles et al., 1983; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006). It has been suggested that self-concept of ability develops in interaction with other people (Dermitzaki & Efklides, 2000), such as parents and teachers. For example, parents' attitudes and beliefs (McGrath & Repetti, 2000; Tiedemann, 2000) as well as teachers' beliefs (Bohlmann & Weinstein, 2013; Burnett, 2003; Lehtinen, Vauras, Salonen, Olkinuora, & Kinnunen, 1995; Tiedemann, 2000) have been shown to be associated with children's self-concept of ability development. Moreover, parental beliefs have been shown to play an even stronger role in children's self-concept of ability development than children's previous level of performance (e.g., Frome & Eccles, 1998). However, although many studies have examined the roles of parents and teachers in the development of children's self-concept of ability, few efforts have been made to examine these among the youngest students (Wigfield et al., 1997). Moreover, although it might be that high performing children benefit from different kinds of teacher and parental support and feedback than low performing children (Bohlmann & Weinstein, 2013), the possibility that the role of parents' and teachers' beliefs is different depending on the level of children's performance has thus far not been considered. Consequently, the aim of the present study was to examine the extent to which parents' and teachers' beliefs about children's abilities are associated with children's academic self-concept development during the first grade of primary school and whether these associations differ according to the level of the children's performance.

1. Self-concept of ability

Self-concept of ability refers to an individual's perception of his or her competence in a certain domain (Wigfield & Eccles, 2000). Earlier, the research emphasis was on a global construct, such as general self-concept or self-esteem (for a review, see Bong & Skaalvik, 2003); however, the notion that self-concept is global in nature has since been criticized for overlooking the important distinctions that children make between activity domains (Harter, 1982). Shavelson, Hubner, and Stanton (1976) proposed a multidimensional, hierarchical model of self-concept, with global self-concept at the apex that can be subdivided into academic and nonacademic components. These in turn can be further divided into subdomains, that is, academic self-concept into self-concepts for specific school subjects, and nonacademic self-concept into subdomains such as physical, social and emotional self-concepts. In the present study, self-concept is also approached subject-specifically, as numerous empirical studies have provided support for the domain-specificity of self-concept, meaning that there are distinct math and verbal domains in academic self-concept (Arens, Yeung, Craven, & Hasselhorn, 2011; Marsh & O'Neill, 1984).

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Eccles' expectancy-value theory provides one theoretical framework for students' self-perceptions in the academic context. According to this theory (Eccles et al., 1983; Eccles & Wigfield, 1995; Wigfield & Eccles, 2000), individuals' performance and academic choices are explained not only by the extent to which they value the activity in question but also by the beliefs they have about their own abilities (expectancies for success). Expectancies are presumed to have a direct influence on different academic outcomes, such as performance (Wigfield & Eccles, 2000). Moreover, ability beliefs and the perceived difficulty of a task are assumed to influence expectancies. Eccles et al. (1983) defined ability beliefs as the individual's perception of his/her current competence at a given activity. Hence, the theoretical difference between ability beliefs and expectancies for success is that ability beliefs focus on present ability while expectancies focus on the future. Although, expectancies and ability beliefs are theoretically distinct concepts, empirically they have not been found to be separate (Eccles et al., 1983; Wigfield & Eccles, 1992, 2000). In the present study, we use the term "self-concept of ability" to refer to task-related perceptions of one's abilities (Wigfield & Eccles, 2000).

Previous studies have shown that children have very positive and even unrealistic perceptions of their abilities during the first years of primary school (Aunola, Leskinen, Onatsu-Arvilommi, & Nurmi, 2002; Wigfield & Eccles, 2000). As they grow older, their perceptions of their abilities become more realistic and more negative (Dweck, 2002; Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002). For example, Dweck (2002) showed that children start to view their abilities more realistically at the age of 7–8. According to Dweck (2002), one reason for this change is that, around this age, children become more responsive to performance feedback. The stability of inter-individual differences in self-concept has also been shown to increase over time. For example, Aunola et al. (2002) found that children's relative standings on their self-concept of ability were very unstable during their first months of primary school, but became relatively stable by the end of the first grade. Overall, the first grades of primary school seem to be an important developmental period for the development of self-concept of ability. Besides the development of cognitive reasoning skills during this period, a whole new social context becomes a part of the child's everyday life: the child starts to receive everyday feedback from teachers and classmates become points of comparison.

2. The role of parents and teachers

It has been suggested that self-perceptions are formed in interaction with one's environment, and are influenced by evaluations by significant others and by reinforcements of, and attributions for, one's behavior (Bong & Skaalvik, 2003; Eccles et al., 1983; Gniewosz, Eccles, & Noack, 2014; Shavelson et al., 1976). For example, according to the Eccles' Expectancy-value model, parental beliefs play an important role in students' ability beliefs (Eccles, 1993). According to the expectancy-value model, the links between parental beliefs and students' achievement-related perceptions can be explained by at least two mechanisms (Eccles, 1993; Eccles et al., 1983; Simpkins, Fredricks, & Eccles, 2012): First, parents can communicate their beliefs to their children directly by encouraging them to do better in school or by giving them positive feedback when they do well in school (Gniewosz et al., 2014); second, parents may communicate their beliefs indirectly through the way they behave with their children, such as by the act of helping children with their schoolwork.

Empirical support has also been found for the assumption that parents' beliefs about their children's academic performance are associated with children's subject-specific self-concept of ability (Eccles Parsons, Adler, & Kaczala, 1982; Frome & Eccles, 1998; Gniewosz, Eccles, & Noack, 2012; Jacobs, 1991; Lau & Pun, 1999; McGrath & Repetti, 2000; Phillips, 1987). For example, among fifth- to eleventh-graders, Eccles Parsons et al. (1982) found that parents who considered that their child did not perform well in math, and that math was difficult for their child, had children whose math-related self-concept was particularly low. Similarly, parents' beliefs have been found to be positively related to sixth-grade children's self-concept of ability in English (native language) (Frome & Eccles, 1998). These associations remained even after controlling for the previous level of children's performance (Frome & Eccles, 1998). Recently, Gniewosz et al. (2014) found that parents' perceptions of their children's abilities mediated the connections between school grades and students' academic self-concept in both math and native language among fifth- to seventh-graders.

Some gender differences in parental beliefs have also been reported. For example, parents tend to think that mathematics is more difficult for girls than for boys (Eccles Parsons et al., 1982; Eccles & Jacobs, 1987; Gunderson, Ramirez, Levine, & Beilock, 2012), independently of children's actual performance in mathematics (Eccles, 1993; Eccles Parsons et al., 1982), a belief which has been shown to impact girls' self-perceptions in mathematics (Jacobs, 1991). Girls, in turn, are typically thought to do better in native language (Gniewosz et al., 2014; Wigfield & Eccles, 1992). It has been further shown that parents of girls tend to overestimate and parents of boys to underestimate their child's ability in native language (English) (Frome & Eccles, 1998). These studies on gender differences in parental beliefs have not focused on children who have just begun their school career, and hence this age group is the focus of the present study.

Besides parents' beliefs, teachers' beliefs and expectations have also been shown to impact students' self-perceptions. For example, teachers' expectations of students' abilities have been shown to relate to students' self-concept of abilities in both mathematics (e.g., Madon et al., 2001) and reading (e.g., Brattesani, Weinstein, & Marshall, 1984). Madon et al. (2001) found that teachers' positive beliefs predicted positive changes in sixth-grade students' mathematics self-perceptions. Brattesani et al. (1984), in turn, found that teachers' expectations were positively associated with students' own expectations and performance in reading among fourth- to sixth-grade students. Moreover, it has been found that teachers' evaluations play a larger role in third- to fourth-graders' general self-concept (i.e., children's perceptions of their general school-related ability) than parents' perceptions (Spinath & Spinath, 2005). Teacher evaluations of student's performance have also been found to correlate highly with objective measures of school performance (e.g., Hoge & Coladarci, 1989). However, there is evidence that although teachers are good at perceiving students' visible performance in the classroom (Hoge & Coladarci, 1989), they do not necessarily perceive their students' underlying cognitive capacities. For example, it has been shown that teachers are not good at detecting underachievers, that is, students who have high abilities but show low school performance (e.g., Rost & Hanses, 1997).

Like parents, teachers also seem to show a gender bias in their beliefs about students' abilities, at least in the domain of mathematics (for a review, see Li, 1999; Gunderson et al., 2012). Teachers have been shown to be prone to stereotype mathematics as a male domain (Li, 1999). For example, Tiedemann (2000) found that German teachers of third- through fourth-grade students believed that mathematics is a more difficult subject for girls than for boys, and that average-achieving girls are less logical than equally achieving boys. It has been found that even preschool-aged children are susceptible to these kinds of gender stereotypes, at least in the mathematics domain (Ambady, Shih, Kim, & Pittinsky, 2001).

Overall, both parents' and teachers' beliefs have been shown to be associated with students' self-concept of ability, while some gender differences, favoring boys over girls in mathematics and girls over boys in native language (English), in these beliefs have also been found (Frome & Eccles, 1998). The earlier research on the topic has, however, some limitations. First, research focused on the role of both teachers' and parents' beliefs is rare (for an exception, see Spinath & Spinath, 2005). There is, however, some evidence indicating that the importance of teacher evaluations for children's ability self-perceptions may increase and the importance of parents' evaluations may decrease during grades