This study examined whether different aspects of self-regulation (i.e., emotion and behavior regulation) account for gender differences in German and mathematics achievement. Specifically, we investigated whether higher school achievement by girls in comparison to boys can be explained by self-regulation. German and mathematics achievement were assessed in a sample of 53 German fifth graders (19 boys, 34 girls) using formal academic performance tests (i.e., reading, writing, mathematics) and teachers' ratings (i.e., grades in German and mathematics). Moreover, teachers rated children's behavior regulation using the Self-Control Scale (SCS-K-D). Children's self-reported strategies of emotion regulation were assessed with the Questionnaire for the Measurement of Stress and Coping in Children and Adolescents (SSKJ 3-8). Age and intelligence (CFT 20-R) were included as control variables. Analyses of mean differences showed that girls outperformed boys in German achievement and behavior regulation. Regression analyses, using a bootstrapping method, revealed that relations between gender and German achievement were mediated by behavior regulation. Furthermore, we found a suppression effect of behavior regulation on the relation between gender and mathematics achievement: boys' mathematics achievement was underestimated.
when the analyses did not control for behavior regulation. We discuss these results from a developmental perspective and within the theoretical framework of self-regulation and achievement. Currently, both scientific literature and German mass media are discussing the discrepancy in school achievement between boys and girls, going so far as to call boys the new losers of the educational system (Spiewak, 2010, August 5). Several studies have found significant gender differences in school achievement favoring girls over boys (Cole, 1997; Duckworth and Seligman, 2006). According to the German census, there are more girls than boys in higher secondary schools, whereas more boys than girls attend lower secondary schools. As a consequence, more girls achieve the general qualification for university entrance, whereas more boys complete the certificate of lower secondary school (Statistisches Bundesamt, 2011). The reasons for these gender differences in school achievement have not been clarified yet. Past research has shown that besides cognitive abilities (e.g., intelligence: Deary et al., 2007; Spinath et al., 2010) the motivation and ability to self-regulate is positively associated with school achievement (Duckworth and Seligman, 2005; Suchodoletz et al., 2009). In line with these findings, previous studies have indicated that specific components of self-regulation—behavioral regulation or self-regulated learning—could contribute to gender differences in school achievement (Duckworth and Seligman, 2006; Kuhl and Hannover, 2012). However, by only investigating behavior regulation, these previous studies neglected the wider conceptualization of self-regulation. The concept of self-regulation includes both behavior regulation and emotion regulation, and both aspects of self-regulation may be related to children's school achievement (Blair, 2002; Calkins, 2007; McClelland et al., 2007). Therefore, it is important to understand the contribution of behavior and emotion regulation to gender differences in school achievement. In the present study, we investigated in a sample of German fifth graders who had just transitioned from primary school to secondary school whether self-regulation mediates effects of gender on school achievement. In particular, we studied the relations between different aspects of self-regulation (i.e., behavior regulation, emotion regulation) and school achievement in different domains (i.e., German and mathematics achievement).

Stichworte:
self-regulation, gender differences, school achievement, behavior regulation, emotion regulation

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