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WHO CARES ABOUT OTHERS?: EMPATHIC SELF-EFFICACY AS AN ANTECEDENT TO PROSOCIAL BEHAVIOR

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ABSTRACT

Two studies tested associations among self-efficacy and prosocial behavior. In Study 1 we measured academic self-efficacy, emotional self-efficacy and self-reported prosocial behavior. The study showed that academic but not emotional self-efficacy was positively correlated with prosocial behavior. Study 1 included only self-oriented emotions, and the absence of empathic emotions may explain the lack of association between emotional self-efficacy and prosocial behavior. In Study 2 we included empathic as well as self-oriented emotions, because previous research (C. D. Batson, 1991) has shown that empathic emotions generate altruistic helping. As expected, empathic self-efficacy had a positive association with prosocial behavior. Empathic self-efficacy appears to be an important, largely overlooked antecedent to prosocial behavior.

INTRODUCTION

Self-efficacy refers to people's perceptions of their ability to achieve desired goals by applying their knowledge to specific tasks (Bandura, 1986). Prosocial behavior is acting in ways that benefit others. Bandura and his colleagues (Bandura, Barbanelli, Caprara, & Pastorelli, 1996; Bandura, Caprara, Barbanelli, Gerbino, & Pastorelli, 2003) have shown that academic self-efficacy is correlated with prosocial behavior. Although academic self-efficacy is relevant, we suggest that emotional self-efficacy is a more important antecedent to prosocial behavior (Caprara, Scabini, Barbanelli, Pastorelli, Regalia, & Bandura, 1999). There are three reasons we assume the preeminence of emotional self-efficacy. First, it is possible to think about another person's situation and still not care. Second, it is possible to care for another person without having confidence in one's academic skills. Third, emotions unlike cognitions are themselves

states of motivational arousal (Brehm, 1999). Brehm argued that "whatever the character of the feeling, whether fear or anger or empathy, it urges one to respond in a particular way..." (p. 2). In line with this thinking, empirical research (Frijda et. al. 1989) has found that feelings in general provide people with the energy to act.

ACADEMIC AND EMOTIONAL SELF-EFFICACY

According to Bandura (1997), efficacy beliefs are best understood as domain-specific. Bandura also views confidence as essentially task-dependent, in contrast to others (e.g., Petrides, 2010) who espouse the view that certain personality traits predispose those who possess them to be generally confident. Further, high perceived self-efficacy in cognitive development and functioning leads to academic motivation and performance, as well as an interest in academic ways of thinking (Bandura, 1993, 1997). Academic self-efficacy can be explained as the perceived efficacy for self-regulated learning and mastery of various academic matters. Bandura et al. (1996) found that children who had a high sense of academic self-efficacy behaved more prosocially and were more popular than children with a low sense of academic self-efficacy.

Emotional self-efficacy is a person's belief in his or her ability to understand and use emotional information (Bandura, 1997). Furnham and Petrides (2003) argued that people with strong emotional self-efficacy are in touch with their feelings to a greater extent than are others (see also Petrides, Fredrickson, & Furnham, 2003). Further, they have more control over their feelings and are more successful in social contexts (Furnham & Petrides). According to Bandura et al. (2003), high emotional self-efficacy is accompanied by a high sense of efficacy to manage one's academic development. A strong belief in one's own capability to adequately respond to others' feelings and needs, as well as to cope with interpersonal relationships, is critical for promoting successful adaption and well-being (Di Giunta et al., 2010). High emotional self-efficacy makes it easier to engage oneself with empathy in others' emotional experiences and resist social pressure to engage in antisocial activities (Bandura et al., 2003).

PROSOCIAL BEHAVIOR

According to Hastings, Rubin and DeRose (2005), prosocial behavior is sympathetic, helpful and considerate behavior toward other people with the intention of actively establishing and maintaining positive relationships among members of a social group. Batson and colleagues (for a review, see Batson, 1991) have repeatedly shown that the motivation behind prosocial behavior can be egoistic or altruistic. Altruistic motivation has another person's welfare as its ultimate goal. For example, Batson, Duncan, Ackerman, Buckley and Birch (1981) showed that people who felt a high degree of empathy were more willing to help a needy person irrespective of whether it was easy or difficult to escape helping. Bandura et al. (2003) found gender differences in which females were shown to be more prosocially involved in relationships as expressed in being helpful and cooperative as well as sharing and consoling.

LINKS BETWEEN SELF-EFFICACY DOMAINS AND PROSOCIAL BEHAVIOR

Alessandri, Caprara, Eisenberg and Steca (2009) stated that certain people are more inclined than others to enact behaviors that benefit others. For example people are not likely to devote energy

toward prosocial behavior which may involve both sacrifices and costs, unless they believe they are able to both master the emotions associated with the recognition of others' needs and establish suitable relationships and actions favorable to meet those needs (Caprara, Alessandro, di Giunta, Panerai, & Eisenberg, 2010). In line with this reasoning, individual differences in self-efficacy beliefs in expressing positive emotions, managing negative emotions (emotional self-efficacy), and interpersonal self-efficacy beliefs (i. e. social self-efficacy beliefs and empathic self-efficacy beliefs) have been found to account for significant portions of the variability in psychosocial functions, including prosociality (Caprara et al., 2010; Caprara, & Steca, 2007; Caprara, Alessandro, & Eisenberg, 2011). Among behaviorally oriented self-efficacy beliefs, the perceived capability to sense another person's feelings and to respond empathetically to others' distress and misfortune (empathic self-efficacy) has shown the highest correlation with prosociality (Alessandri et al., 2009; Caprara & Steca, 2005, 2007; Caprara, Alessandri, & Eisenberg, 2011) and is clearly critical for promoting successful adaption and well-being (Di Giunta et al., 2010). If individuals feel capable of handling empathic feelings, they are unlikely to become overpowered by them and experience self-focused personal distress rather than sympathetic concern (Batson, 1991).

High perceived self-efficacy in cognitive development and functioning leads to academic motivation and performance, as well as an interest in academic ways of thinking (Bandura, 1993, 1997). Several studies have shown that early prosocial tendencies in children seem to be associated with children's accomplishments in the academic domain (Bandura, Barbaraneli, Caprara, & Pastorelli, 1996; Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000: Miles & Stipek, 2006: Newman, 1991, Wentzel, McNamara-Barry, & Caldwell, 2004). Caprara, et al. (2000) found that early prosocial behavior strongly predicted subsequent level of academic achievement and Bandura et al. (1996) showed that efficacy beliefs contributed to children's academic achievements in diverse paths of influences. Children who believed in their efficacy to regulate their own learning and academic attainments (high academic self-efficacy), behaved more prosocially and were more popular than children with low academic self-efficacy. It is possible that children who show their peers consideration and gain their acceptance perceive that a favorable school environment promotes learning more than those who behave in socially alienating ways and are repeatedly rejected by their peers. A high academic self-efficacy may foster prosocial behavior which can build peer acceptance (Bandura et al.).

Bandura et al. (2003) found that perceived self-efficacy for affect regulation (emotional self-efficacy) fundamentally mediated prosocial behavior by having an impact on both perceived academic self-efficacy and empathic self-efficacy. A strong sense of efficacy to manage one´s positive and negative emotional life contributed to perceived self-efficacy to take charge in one's academic activities and to engage oneself with empathy in others' emotional experiences. Perceived self-efficacy for affect regulation essentially operated mediationally through the later behavioral forms of self-efficacy rather than directly on prosocial behavior (Bandura et al., 2003).

THE PRESENT RESEARCH

Although Bandura (1993, 1997) noted that both academic and emotional self-efficacy are important sources of prosocial behavior, we believe the importance of the role emotional self-

efficacy plays in prosocial behavior has been understated in psychology. A substantial body of empirical research (e.g., Frijda, Kuipers & ter Schure, 1989) has shown that emotions provide people with energy and motivation for action and behavior.

Along this line of thought regarding the nature of emotions, we find it reasonable that an individual's strong emotional self-efficacy evokes a high degree of prosocial behavior. In the present research, we expected high school students' prosocial behavior to correlate more strongly with emotional self-efficacy than with academic self-efficacy. We conducted two studies in which participants reported their reactions to another (fictive) student's need.

STUDY 1

The purpose of Study 1 was to investigate the role of high school students' academic and emotional self-efficacy in their self-reported prosocial behavior. We expected a positive association between academic self-efficacy and prosocial behavior. Further, we predicted an even stronger relationship between emotional self-efficacy and prosocial behavior.

Method

The participants in Study 1 were 121 high school (upper secondary school) students (82 boys and 39 girls) aged 15-19 years (M = 16.1), in a Swedish town. Among the participants, 84.3% were non-immigrants and 15.7% immigrants. They were guaranteed anonymity and volunteered to participate without compensation. Over and above the 121 students who participated, there were 23 other students in the classes who did not participate for various reasons (16 were absent due to illness, 3 arrived late, 2 declined to participate and 2 filled in the questionnaires incorrectly).

The questionnaire began with descriptions of three fictive situations, each followed by a question intended to measure self-reported prosocial behavior. Next followed 24 statements measuring academic and emotional self-efficacy, and additional questions about prosocial behavior. The academic and emotional self-efficacy items were translated from Muris' (2001) Self-efficacy Questionnaire for Children (SEQ-C) and modified into statements with the response alternatives 1 = not at all to 6 = completely. Each of these subscales contained 8 items. Examples of the academic self-efficacy items were "I do okay in all school subjects" and "I can prepare for an exam" (Cronbach's Alpha = .80). Examples of the emotional self-efficacy items were "I can handle my feelings" and "I never worry about things". Cronbach's Alpha for the initial analysis for emotional self-efficacy was .54, and after the exclusion of two items ("I have difficulty forgetting unpleasant things that have happened" and "I worry about things that might happen") .71. In order to measure prosocial behavior in children, we translated eight items from Romano, Tremblay, Boulerice and Swisher (2005) into Swedish and modified them to suit the present research. Examples of these items were "I offer to help other students who are having difficulty with a task" and I help other students who feel bad or are sick". To those eight items, we added three prosocial behavior questions about the three fictive situations (going home to a student to give them one's lecture notes, helping a student who dropped a tray in the lunch room, and lending one's telephone to another student despite risking missing a bus). The prosocial items were rated on the same 6-point scale as the academic and emotional self-efficacy items

(Cronbach's Alpha = .91). The students completed the questionnaire individually in the classroom.

Results

We performed a series of Sex (male, female) x Ethnicity (immigrant, non-immigrant) between-groups ANOVAs to assess differences in emotional self-efficacy, academic self-efficacy, and prosocial behavior. There were no significant effects for emotional self-efficacy. There was, however, a main effect for academic self-efficacy such that girls had higher academic self-efficacy than boys (see Table 1), F (1, 118) = 5.84, $p < .02$. Similarly, girls also exhibited more prosocial behavior than boys (see Table 1), F (1, 119) = 9.33, $p < .05$. No other effects were significant for academic self-efficacy and prosocial behavior.

Table 1
Means (and standard deviations) for Emotional Self-Efficacy, Academic Self-Efficacy and Prosocial Behavior

	Emotional Self-Efficacy	Academic Self-Efficacy	Prosocial Behavior
Boys	3.71 (0.81)	4.18 (0.81)	2.93 (0.97)
Girls	3.38 (0.85)	4.75 (0.73)	3.97 (0.70)
Total	3.60 (0.84)	4.36 (0.83)	3.27 (1.01)

Pearson correlation analyses revealed significant positive relationships between academic self-efficacy and both prosocial behavior, r (117) = .52, $p < .01$, and emotional self-efficacy, r (117) = .40, $p < .01$. There was, however, no significant correlation between emotional self-efficacy and prosocial behavior, r (118) = .17, *ns*.

A multiple regression analysis was conducted to examine the extent to which academic and emotional self-efficacy predicted prosocial behavior. Only academic self-efficacy significantly predicted prosocial behavior (Table 2).

Table 2
Simultaneous multiple regression analysis predicting Prosocial Behavior from Academic Self-Efficacy and Emotional Self-Efficacy in Study 1 (N = 121)

	Beta
Academic Self-Efficacy	.524*
Emotional Self-Efficacy	-.023
R^2	.253

*$p < .001$.

Discussion

As hypothesized, academic self-efficacy was positively correlated with prosocial behavior. This result is consistent with Bandura's (1997) view that academic ambitions and prosocial behavior are closely linked. The analysis also revealed that girls had higher academic self-efficacy than

boys, which is in line with previous studies showing that girls perform better than boys in academic contexts (for a review, see Pajares, 2002). However, our hypothesis that emotional self-efficacy would have the strongest association with prosocial behavior did not receive support.

Although the hypothesis was not supported, we maintained the notion that prosocial behavior is caused to a great extent by emotional factors. The results inspired us to seek additional explanations and rethink our instrument for measuring emotional self-efficacy.

We found a potential explanation for the results of Study 1 in the empathy field. In a series of experiments, Batson (see Batson, 1991) showed that empathy is a source of altruistic behavior. Batson, Early and Salvarani (1997) identified two possible distinct emotional reactions for a person who encounters someone in need: self-oriented (personal distress) emotions and other-oriented (empathic) emotions. Batson's personal distress scale (Batson, et al., 1997) includes emotions such as worried and upset. Batson's empathy scale (Batson, et al., 1997) includes emotions such as sympathy and compassion.

The items used to measure emotional self-efficacy in Study 1 all reflected beliefs in emotions that, according to Batson's distinction, were self-oriented. The other-oriented emotions in Batson's scale were missing. Therefore, we conducted an additional study in which emotional self-efficacy was complemented with statements measuring empathic emotions.

STUDY 2

In accordance with Bandura (e.g., Bandura, 1993; Bandura et al., 2003), Di Giunta et al. (2010) and Kirk, Schutte and Hine (2008) we use the term "empathic self-efficacy" to refer to other-oriented emotional self-efficacy. There is, however, an important distinction between their conceptualization of empathic self-efficacy and ours. Bandura, Di Giunta et al. and Kirk et al. defined and measured empathic self-efficacy in terms of feeling others' feelings. For example, if the target is sad or afraid, then the empathizer feels the target's sadness or fear. This form of empathy has not been shown to generate altruistic motivation. In contrast, Batson has provided experimental evidence that empathy defined as a special feeling of compassion generates altruistic motivation (see Batson, 1991 for a review, but also Cialdini, Brown, Lewis, Luce, & Neuberg, 1997 for an alternative view). According to Batson, the empathizer does not experience the same feeling as the target, but rather a feeling of compassion. We chose to base our empathic self-efficacy scale on Batson's *specific empathy feelings*, because these reflect the form of empathy that is most relevant for altruistic helping.

Study 2 was based on Study 1, and also on the idea from the empathy literature that there are two types of emotions: egocentric and empathic (Batson, et al., 1997). The aim of the second study was to examine the relationship between emotional self-efficacy and prosocial behavior, including *both* self-oriented and other-oriented emotions. We hypothesized (1) a positive association between emotional self-efficacy and prosocial behavior and (2) that empathic self-efficacy correlates more strongly with prosocial behavior than do self-oriented emotional self-efficacy.

Method

Participants were 48 high school students (15 boys and 33 girls) aged 16-19 years (M = 16.8). Among the participants, 89.4% were non-immigrants and 10.6% immigrants. The students were recruited from the same high school as in Study 1, but from three different classes. There were a total of 56 students, but 8 did not participate due to illness.

The questionnaire and procedure were the same as those in Study 1, with two changes. First, the items measuring academic self-efficacy were excluded. Second, based on the empathy adjectives *sympathy*, *tender*, *moved*, *softhearted*, *warm* and *compassionate* on Batson's (Batson, et al., 1997) empathy scale, we added six items to the emotional self-efficacy scale. Thus, altogether the new emotional self-efficacy scale included 14 items, of which eight were self-oriented and six other-oriented. Cronbach's Alpha for all 14 items was .79, for self-oriented items .71, and for other-oriented .86.

Results

Using a two-way ANOVA we found no significant effects of sex or ethnicity on emotional self-efficacy. Another two-way ANOVA revealed a significant main effect of ethnicity on prosocial behavior, F (1, 47) = 6.47, $p < .02$. Immigrants reported higher levels of prosocial behavior (M = 4.69, SD = 1.06) than did non-immigrants (M = 3.52, SD= 1.06). There was no main effect of sex and no interaction effect for prosocial behavior.

In line with the first hypothesis, emotional self-efficacy had a significant positive correlation with prosocial behavior (Table 3). Further, in line with the second hypothesis, the correlation between empathic self-efficacy and prosocial behavior was stronger than that between self-oriented emotional self-efficacy and prosocial behavior, t (45) = 2.64, $p < .01$.

Table 3
Pearson correlations between Prosocial Behavior, Emotional Self-Efficacy, Self-Oriented Self-Efficacy and Empathic Self-Efficacy

Index	1	2	3
1. Prosocial Behavior			
2. Emotional Self-Efficacy	.77*		
3. Self-Oriented Emotional Self-Efficacy	.39*	.74*	
4. Empathic Self-Efficacy	.77*	.81*	.20

* $p < .01$

A multiple regression analysis was performed to investigate the extent to which prosocial behavior can be predicted from self-oriented and empathic self-efficacy. These two variables significantly predicted prosocial behavior (Table 4).

Table 4

Simultaneous multiple regression analysis predicting Prosocial Behavior from Self-Oriented and Empathic Self-Efficacy in Study 2 (n = 48)

	Beta
Self-Oriented Emotional Self-Efficacy	.247*
Other-Oriented Emotional (Empathic) Self-Efficacy	.722**
R^2	.654*

* $p < .05$. **$p < .001$.

Discussion

The results of Study 2 provided support for the two hypotheses. First, the study showed a positive association between emotional self-efficacy and prosocial behavior. The two studies may appear to show different results regarding the relationship between emotional self-efficacy and prosocial behavior. However, the difference between the two studies is the inclusion of other-oriented emotional self-efficacy only in Study 2. Study 1 did not include the kinds of emotions that would be relevant in interaction with others.

Second, in line with Hypothesis 2, empathic self-efficacy was more strongly associated with prosocial behavior than was self-oriented emotional self-efficacy. This result is in line with Batson, et al. (1997), who showed that other-oriented rather than egocentric emotions are those that are relevant in concern for the welfare of others.

Study 2, in contrast to Study 1, revealed no sex-based differences. Also in contrast to Study 1, in Study 2 immigrants had a higher level of prosocial behavior than did non-immigrants. Because the effects of sex and ethnicity did not show a stable pattern across the two studies, we draw no conclusions about them.

GENERAL DISCUSSION

The results of our two studies, consistent with previous research (e.g., Bandura et al., 2003), support the idea that emotional self-efficacy is an important situational antecedent to prosocial behavior. The two studies together revealed that emotional as well as academic self-efficacy are associated with prosocial behavior. Empathic self-efficacy, along with academic self-efficacy, is an important and largely overlooked source of prosocial behavior.

As far as we know, this way of conceptualizing emotional self-efficacy is new. While we stayed within the traditional self-efficacy paradigm in Study 1, in Study 2 we were also inspired by the empathy field. In merging traditional self-efficacy research and empathy research, we hope to have found a new way of measuring emotional self-efficacy and its relation to prosocial behavior. It is important to note, however, that the prosocial behavior in the present studies was self-reported. In order to advance the ideas spelled out in this paper, future research should test the effects of empathic self-efficacy on actual behavior.

A number of empirical studies have shown that empathy evokes prosocial motivation. We believe the contribution of the present two studies is primarily to draw attention to the possibility of enriching the concept of emotional self-efficacy with insights from the empathy field. Much

of what we hope to have inspired with this research concerns the possibilities of integration between the fields of self-efficacy and empathy. More specifically, previous conceptualizations of empathic self-efficacy (e.g., Bandura, 1993 have focused on the empathizer experiencing the target's emotions. In contrast, we have based our definition of empathic self-efficacy on Batson's notion of empathy in terms of the special feeling of compassion because it is this type of empathy that has been shown to generate altruistic helping. Although basically theory-driven, we hope these findings can inspire the development of programs for teaching children to believe in their empathic capabilities.

REFERENCES

Alessandri, Guido, Caprara, Gian Vittorio, Eisenberg, Nancy, & Steca, Patrizia. 2009. "Reciprocal relations among self-efficacy beliefs and prosociality across time." *Journal of Personality,* 77: 1229 - 1259.

Bandura, Albert. 1986. *Social foundations of thought and action: A social cognitive theory.* Prentice-Hall, Englewood Cliffs, NJ.

Bandura, Albert. 1997. *Self-efficacy: The exercise of control.* Freeman, New York.

Bandura, Albert. 1993. "Perceived self-efficacy in cognitive development and functioning." *Educational Psychologist,* 28: 117 - 148.

Bandura, Albert, Barbaranelli, Claudio, Caprara, Gian Vittorio, & Pastorelli, Concetta. 1996. "Multifaceted impact of self-efficacy beliefs on academic functioning." *Child Development,* 67: 1206 - 1222.

Bandura, Albert, Caprara, Gian Vittorio, Barbaranelli, Claudio, Gerbino, Maria, & Pastorelli, Concetta. 2003. "Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning." *Child Development,* 74: 769 - 782.

Batson, C. Daniel. (1991). *The altruism question: Toward a social-psychological answer.* Lawrence Erlbaum, Hillsdale, NJ.

Batson, C. Daniel, Duncan, Bruce D., Ackerman, Paula, Buckley, Terese, & Birch, Kimberley. 1981. "Is empathic emotion a source of altruistic motivation?" *Journal of Personality and Social Psychology*, 40: 290 - 302.

Batson, C. Daniel., Early, Shannon, & Salvarani, Giovanni. 1997. "Perspective taking: Imagining how another feels versus imagining how you would feel." *Personality and Social Psychology Bulletin*, 23: 751 - 758.

Brehm, Jack W. 1999. "The intensity of emotion." *Personality and Social Psychology Review,* 3:2 - 22.

Caprara, Gian Vittorio, Alessandri, Guido, Di Giunta, Laura, Panerai, Laura, & Eisenberg, Nancy. 2010. "The contribution of agreeableness and self-efficacy beliefs to prosociality." *European Journal of Personality,* 24: 36 - 55.

Caprara, Gian Vittorio, Alessandri, Guido, & Eisenberg, Nancy. (2011, September 26). "Prosociality: The Contribution of traits, values, and self-efficacy beliefs." *Journal of Personality and Social Psychology*. Advance online publication. doi: 10.1037/a0025626

Caprara, Gian Vittorio, Barbaranelli, Claudio, Pastorelli, Concetta, Bandura, Albert, & Zimbardo, Philip. 2000. "Prosocial foundations of children's academic achievement." *Psychological Science,* 11: 302 - 306.

Caprara, Gian Vittorio, Scabini, Eugenia, Barbaranelli, Claudio, Pastorelli, Concetta, Regalia, Camillo, & Bandura, Albert. 1999. "Perceived emotional and interpersonal self-efficacy and good social functioning." *Giornale Italiano di Psicologia*, 26: 769 - 789.

Caprara, Gian Vittorio, & Steca, Patrizia. 2005. "Self-efficacy beliefs as determinants of prosocial behavior conducive to life satisfaction across ages." *Journal of Social and Clinical Psychology,* 24: 191–217.

Caprara, Gian Vittorio, & Steca, Patrizia. 2007. "Prosocial agency: The contribution of values and self-efficacy beliefs to prosocial behavior across ages." *Journal of Social and Clinical Psychology,* 26: 218–239.

Cialdini, Robert B, Brown, Stephanie L, Lewis, Brian P, Luce, Carol, & Neuberg, Steven L. 1997. Reinterpreting the empathy-altruism relationship: When one into one equals ones. *Journal of Personality and Social Psychology*, 73: 481 - 494.

Di Giunta, Laura, Eisenberg, Nancy, Kupfer, Anne, Steca, Patrizia, Tramontano, Carlo, & Caprara, Gian Vittorio. 2010. "Assessing perceived empathic and social self-efficacy across countries." *European Journal of Psychological Assessment,* 26: 77 - 86.

Frijda, Nico H, Kuipers, Peter, & ter Schure, Elisabeth. 1989. "Relations among emotion, appraisal and emotional action readiness." *Journal of Personality and Social Psychology,* 57: 212 - 228.

Furnham, Adrian, & Petrides, K.V. 2003. "Trait emotional intelligence and happiness." *Social Behavior and Personality,* 31: 815 - 824.

Hastings, Paul D., Rubin, Kenneth H., & DeRose, Laura. 2005. "Links among gender, inhibition, and parental socialization in the development of prosocial behavior." *Merill-Palmer Quarterly,* 51: 467 - 493.

Kirk, Beverley A., Schutte, Nicola S., & Hine, Donald W. 2008. "Development and preliminary validation of an emotional self-efficacy scale." *Personality and Individual Differences,* 45: 432 - 436.

Miles, Sarah B., & Stipek, Deborah. 2006. “Contemporaneous and longitudinal associations between social behavior and literacy achievement in a sample of low-income elementary school children.” *Child Development,* 77: 103 - 117.

Muris, Peter. 2001. “A brief questionnaire for measuring self-efficacy in youths.” *Journal of Psychopathology and Behavioral Assessment*, 23: 145 - 148.

Newman, Richard S. 1991. “Goals and self-regulate learning: What motivates children to seek academic help?” In M. L. Maher & P. R. Pintrich (Eds.), *Advances in motivation and achievement: A research annual* (Vol. 7, pp. 151–183). Greenwich, CT: JAI Press.

Pajares, Frank. 2002. “Gender and perceived self-efficacy in self-regulated learning.” *Theory into Practice,* 41: 116 - 125.

Petrides, K. V. 2010. “An application of belief-importance theory with references to the big five and trait emotional intelligence.” *Social Behavior and Personality,* 38: 697-710.

Petrides, K. V, Frederickson, Norah, & Furnham, Adrian. 2003. “The role of trait emotional intelligence in academic performance and deviant behavior at school.” *Personality and Individual Differences,* 36: 277 - 293.

Romano, Elisa, Tremblay, Richard E., Boulerice, Bernard, & Swisher, Raymond. 2005. “Multilevel correlates of childhood physical aggression and prosocial behavior.” *Journal of Abnormal Child Psychology,* 33: 565 - 578.

Suldo, Shannon M., & Shaffer, Emily J. 2007. “Evaluation of the self-efficacy questionnaire for children in two samples of American adolescents.” *Journal of Psychoeducational Assessment,* 25: 341 - 355.

Wentzel, Kathryn R., McNamara-Barry, Carolyn, & Caldwell, Kathryn. A. 2004. “Friendships in middle school: Influences on motivation and school adjustment.” *Journal of Educational Psychology,* 96: 195 - 203.

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