# Implicit measures for preschool children confirm self-esteem's role in maintaining a balanced identity ☆

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## HIGHLIGHTS

- Assessed implicit self-esteem, gender identity and gender attitudes in 5-year-olds
- Documented strong implicit self-esteem (self-positivity) in 5-year-olds
- Girls identified more strongly with *own-gender* than boys.
- Girls demonstrated stronger *gender in-group preference* than boys.
- Implicit self-esteem serves an identity-maintenance function, even in pre-schoolers.

## GRAPHICAL ABSTRACT

Results for implicit measures of 5-year-old children. * = significant sex differences. Error bars = SE. For boys, effect sizes (d) of .98, .51, and .35 are associated with the measures of self-esteem, gender identity and gender in-group attitude, respectively. For girls, effect sizes (d) of .88, .76, and 1.40 are associated with the measures of self-esteem, gender identity and gender in-group attitude, respectively.
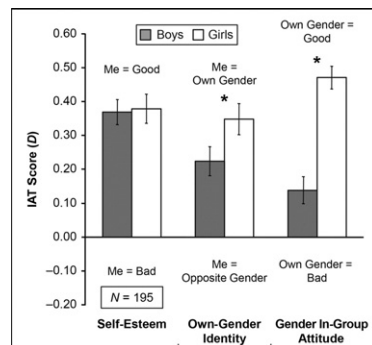


## ARTICLE INFO

## ABSTRACT

Self-esteem is one of social psychology's central constructs. Despite the wide endorsement of the importance of self-esteem, there remains substantial variation in theoretical conceptions of *how* self-esteem functions. To help address this point, 234 5-year-old children were tested in 3 studies that used a new implicit measure, the Preschool Implicit Association Test (PSIAT). The PSIAT assessed associations of (a) *me* with *good* (self-esteem), (b) *me* with *boy* or *girl* (gender identity), and (c) *boy* or *girl* with *good* (gender attitude). The results documented self-esteem in 5-year-olds, as well as own-gender identity and gender in-group preferences. Interestingly, children who had high self-esteem and strong own-gender identity displayed strong gender in-group prefer-ences, supporting balanced identity theory's theoretical expectations that implicit self-esteem serves an identity-maintenance function, even for young children. By preschool age, children display fundamental proper-ties of adult implicit social cognition that relate to maintenance and functioning of group identities.

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## 1. Introduction

Psychological interest in self-esteem—positive self-evaluations—can be traced to James (1890) theorizing about self-love in *Principles of Psychology*. Self-esteem is widely conceived as a relatively stable trait, consisting of positive self-regard or attitude, and arising in normal development (Allport, 1955; Maslow, 1951; Rogers, 1959). Despite the wide endorsement of the importance of self-esteem, there remains substantial variation in theoretical conceptions of *how* self-esteem functions in ways that justify its status as an essential ingredient of personality.

## 2. An identity maintenance function of self-esteem

Several theories that are not routinely grouped together offer conceptions that treat self-esteem as a relatively stable trait having a central role in the formation and maintenance of social identities. These include: (a) social identity theory's view that low self-esteem motivates identification with positively regarded groups (Tajfel & Turner, 1979), (b) self-affirmation theory's view that high self-esteem provides a resource to affirm a threatened identity (Steele, 1988), (c) self-verification theory's view that people seek to maintain stable and coherent self-views (Swann, 1983), (d) Farnham, Greenwald, and Banaji's (1999) analysis of self-esteem's connection to in-group favoritism, and (e) balanced identity theory's view that identities, attitudes, and self-esteem self-organize to maintain affective–cognitive consistency (Greenwald et al., 2002). This paper examines the balanced identity theory (BIT) view that self-esteem—conceived as an association of self with positive valence—is the central gear of an affective–cognitive system that interrelates associations of self with a social category (identity) to associations of the social category with valence (group attitude).

## 3. Limitations of self-esteem measures

In the most widely used self-esteem measures, respondents are typically aware that they are responding to items that measure positive self-regard. This transparency can cause these measures to function more to reveal impression management strategies than to reveal self-esteem (Paulhus, 2002).

A recent method for assessing self-esteem that may avoid self-presentational distortion is the Implicit Association Test (IAT; Greenwald & Farnham, 2000; Greenwald, McGhee, & Schwartz, 1998). In adult subjects, IAT measures of self-esteem have been found to correlate only weakly with self-report measures of self-esteem (Greenwald & Farnham, 2000; Rudolph, Schröder-Abé, Schütz, Gregg, & Sedikides, 2008). The theoretical significance of discrepancies between explicit and implicit measures of self-esteem remains to be determined (cf. Valiente et al., 2011).

Also to be noted is that various proposed implicit measures of self-esteem correlate only weakly with one another (cf. Bosson, Swann, & Pennebaker, 2000). This may reflect only that most of the implicit measures are psychometrically weak (Buhrmester, Blanton, & Swann, 2011). Although some studies have confirmed predictions for correlations involving IAT-measured self-esteem (Bosson et al., 2000; Greenwald & Farnham, 2000; Rudolph et al., 2008), the totality of available evidence about IAT measures of self-esteem remains quite limited, justifying further studies such as the present one.

The strongest evidence for validity of IAT measures of self-esteem comes from empirical tests of the predictions of BIT's *balance–congruity principle* (Cvencek, Greenwald, et al., 2015; Greenwald et al., 2002). BIT's balance–congruity principle describes constraints on interrelations among sets of associations involving the self, social groups, and positive or negative valence. For example, in the presence of high self-esteem, the balance–congruity principle expects the maintenance of the identity association between self and a positively (but not a negatively) valenced group. Balanced identity findings help to build a case for nomothetic validity of IAT measures of self-esteem.

## 4. Balanced identity and self-esteem in children

Balance–congruity principle predictions have been confirmed using samples of adults and older children (for a review see Cvencek, Greenwald, & Meltzoff, 2012). Research indicates that balanced identity organizations may be apparent in elementary-school children (Cvencek, Meltzoff & Greenwald, 2011; Dunham, Baron, & Banaji, 2007), but such organization has yet to be examined in preschoolers.[1] Although preschoolers may exhibit a variety of self-related concepts, they may not have organized them yet in a balanced or consistent fashion.

Harter and colleagues' work using pictorial self-report (Harter & Pike, 1984) indicates that young children (ages 3- to 7-years-old) can evaluate themselves in terms of how good they are in *particular* areas (such as math, physical achievements, etc.). These domain-specific self-evaluations are strongly positive for the majority of young children (Harter, 2012), which agrees with research showing that most adults have a positive attitude toward self (Baumeister, 1982; Greenwald, 1980; Taylor & Brown, 1988). Nevertheless, Harter (2006) could find no evidence of children integrating their domain-specific self-evaluations ("I am pretty good at climbing") into a global self-evaluation (see also Marsh, Ellis, & Craven, 2002). The lack of an accepted measure of self-esteem for preschoolers added further significance to the present attempt to extend BIT's interpretation of self-esteem's identity-maintenance role to preschoolers.

## 5. Variation in own-gender identities and gender in-group preferences

As part of investigating affective–cognitive consistency in the current study, special attention is paid to gender differences in children's implicit gender identity and gender attitudes.

Previous studies of implicit cognition with both adults (Greenwald et al., 2002; Rudman & Goodwin, 2004) and children (Cvencek, Meltzoff & Greenwald, 2011) showed that the implicit gender identity of males is weaker than the implicit gender identity of females. In addition, gender attitude IAT measures reveal stronger gender in-group preference in women than in men (Rudman & Goodwin, 2004), and in girls than in boys (Cvencek, Greenwald & Meltzoff, 2011). The present research offers an additional opportunity to assess own-gender identity and gender in-group preference using implicit measures very early in development.

## 6. Goals of the present research

This research sought to validate a recently developed measure of implicit self-esteem for young children, the Preschool Implicit Association Test (PSIAT; Cvencek, Greenwald, & Meltzoff, 2011) by testing whether the pattern of correlations obtained at younger ages agrees with that obtained with older children and adults. Three predictions were made: (a) 5-year-old children will demonstrate strong implicit self-positivity on the PSIAT self-esteem measure, (b) 5-year-olds will identify with their own-gender (based on and extending Ruble, Martin, & Berenbaum, 2006), and (c) 5-year-old girls will show stronger gender in-group preferences than 5-year-old boys (based on and extending Cvencek, Greenwald & Meltzoff, 2011).

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[1] Dunham et al.'s (2007) study included 5-year-olds, but with only nine in their sample and no statistical assessment of preschoolers, there was insufficient basis for generalizing to a preschool population.