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Self-Concept Clarity and Self-Esteem in Adolescence: Associations with Psychological, Behavioral, and Academic Adjustment

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Self-Concept Clarity and Self-Esteem in Adolescence:

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by

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Abstract

Self-concept clarity reflects the consistency or structure of self-concepts, and is distinct yet related to self-esteem or valence of feelings towards the self. However, research on self-concept clarity is novel and mostly conducted in adults only; studies on self-concept clarity in adolescence are limited. In the present study, self-concept clarity was examined as a related yet distinct construct from self-esteem in middle school. Factor structure and criterion validity of self-concept clarity and self-esteem was established by using factor analysis and examining associations with self- and teacher- reported psychological, behavioral, and academic indices of adjustment. Moreover, mean level gender, grade, and ethnic differences are discussed. Overall, results suggest that assessing both structure (self-concept clarity) and valence (self-esteem) of self-concepts allows for the most thorough understanding of adolescent adjustment. Specifically, self-concept clarity and self-esteem emerged as separate factors with unique associations with the adjustment indices. Findings are expected to extend past research on self-concept clarity to adolescence, and contribute to the study of sense of self and adjustment in middle school.

Introduction

Throughout the lifespan, behaviors and adjustment are intimately connected to the sense of self. Whereas self-esteem, or self-reflexive evaluation of one's identity and value as an individual (Tesser & Campbell, 1983), represents the valence of self-concepts, self-concept clarity is more structural in nature, reflecting the degree to which self-concepts and beliefs are clearly and confidently defined, temporally stable, and internally consistent (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996). Relative to self-esteem, the structure of self-concepts is far less examined (Campbell, Assanand, & Di Paula, 2003). Research on adults suggests self-concept clarity and self-esteem are positively related yet separate constructs uniquely related to adjustment (Campbell, 1990). For instance, high self-esteem and high self-concept clarity are related to life satisfaction and contentment (Diener & Diener, 1995), prosocial behaviors during conflict (Bechtoldt, De Dreu, Nijstad, & Zapt, 2010; Eisenberg & Fabes, 1998) and low levels of social anxiety (Stopa, Brown, Luke, & Hirsch, 2010).

Currently, research on self-concept clarity is novel and is almost entirely based in adulthood. Thus, little is known about this construct and its associations with adjustment in adolescence. During adolescence, where self-representations become more integrated (e.g., Harter et al., 1998; Harter; 2006), cognitive ability enables youth to report on self-related processes. Aspects of the self and identity have meaningful implications for

adjustment and well-being. For instance, high perceived self-worth is negatively related to peer victimization and loneliness (Graham & Juvonen, 1998), and identity-achieved adolescents demonstrate superior cognitive functioning (Boyes & Chandler, 1992). Thus, understanding the valence (self-esteem) and structure (self-concept clarity) of the self in this age group may prove beneficial for the study of adolescent development. The purpose of the present study was first to extend existing research on self-concept clarity by using factor analysis to differentiate self-concept clarity from self-esteem, a technique lacking in current research on self-concept clarity. Second, the extent to which self-concept clarity is associated with positive psychological, behavioral, and academic adjustment in adolescence was examined to increase understanding of youth's self-related processes.

Understanding Self-Esteem and Self-Concept Clarity

As a global judgment of the self, self-esteem can be described as the valence of feelings towards oneself (Campbell et al., 1996; 2003). That is, one can feel a generalized sense of positivity or negativity towards the self, which is in turn associated with psychological, behavioral, and academic adjustment. In contrast, structural components of the self are characterized by pluralism (e.g., complexity and compartmentalization of self-concepts) and unity (e.g., clarity or differentiation between self-concepts; Campbell et al., 2003) of the self. As a structural component of the self, self-concept clarity reflects a consistent and stable set of self-beliefs that is separate but related to the valence of self-concepts (Baumgardner, 1990). The relationship between self-esteem and self-concept clarity is best described by Campbell (1996):

> Although high self-esteem people have positive, well-articulated beliefs about the self, the prototypic low-self-esteem person does not, in contrast, have a well-defined negative view of the self. The self-concepts of low-self-esteem people are better described as evaluatively neutral and, more important, are characterized by relatively high levels of uncertainty, instability, and inconsistency (i.e., low clarity; p. 142).

Thus, although high self-concept clarity may co-occur with high self-esteem, and low self-esteem with low self-concept clarity, these perceptions of the self are not redundant.

Whereas self-esteem can be adaptive or maladaptive (i.e., linked with both positive and negative adjustment indices), existing research suggests that self-concept clarity is always adaptive (i.e., associated with positive adjustment across studies). Specifically, self-esteem is associated with positive psychological adjustment, but also with positive and negative behavioral adjustment, and relationships with academic variables are inconsistent and unclear. Self-concept clarity, in turn, is also linked to positive psychological adjustment, and in emerging research, appears to be associated with positive behavioral and academic correlates.

Campbell and colleagues (1990; 1996; 2003) suggest that self-concept clarity may be a more simple measure of self-understanding than those used in related identity studies. One's identity is comprised of motivations, individuality, beliefs, abilities, and personal experiences, and is dynamic throughout life (Marcia, 1980). Self-concept clarity can be understood in terms of a stable understanding of one's identity regardless of the valence (i.e., positivity or negativity) or specific content of self-concepts and identity.

Thus, it is possible to maintain self-concept clarity throughout dynamic changes in identity. Marcia's (1966) conceptualization of Erickson's identity theory describes identity development as a psychosocial task that includes four levels of success (diffusion, foreclosure, moratorium, and achievement). Self-concept clarity does not necessarily reflect an achieved identity in which self-concepts and beliefs are engrained and stable, but rather a level of coherence and certainty in self-concepts and identity components.

Self-Esteem and Self-Concept Clarity: Research in Adulthood

Overall, both self-esteem and self-concept clarity reflect positive psychological adjustment. However, associations with behavioral and academic adjustment remain unclear. Further, self-esteem and self-concept clarity have mostly been examined in separate studies. Thus, it remains unclear whether and how self-concept clarity and self-esteem are uniquely associated with adjustment while controlling for each other. The following comprises a review of research on self-esteem and self-concept clarity and their associations with adjustment in adulthood.

Associations with psychological adjustment. Both self-concept clarity and self-esteem are linked to positive indices of psychological adjustment. For instance, negative affect, or trait-like sadness, and neuroticism, the dispositional tendency to experience negative emotions, are negatively related to self-esteem and self-concept clarity (Campbell et al., 1996; Scheir, Carver, & Bridges, 1994). Moreover, individuals low in self-esteem and those low in self-concept clarity also tend to report an insecure attachment, suggesting that negative and inconsistent self-concepts are related to

underlying processes that influence levels of anxiety or comfort in relationships (Kerns, Keleppit, & Cole, 1996; Wu, 2009). Overall contentment and satisfaction with life is associated with high levels of self-esteem (Diener & Diener, 1995), and self-concept clarity (Bigler, Neimeyer, & Brown, 2001). In line with these findings, individuals with low self-concept clarity experience more social anxiety (Stopa et al., 2010) and engage in more frequent upward social comparisons, a tendency heightened in anxious individuals (Butzer & Kuiper, 2005). Similarly, individuals with high self-esteem have lower anxiety (Rawson, 1992) and better outcomes after experiencing feelings of personal rejection by others (Sommer & Baumeister, 2002).

Furthermore, in addition to emotional adjustment, self-esteem is positively related to narcissism, or inflated perceptions of the self as superior to others (e.g., Baumeister, Smart, & Boden, 1996). The overlap in measures of narcissism and self-esteem (e.g., Raskin, Novacek, & Hogan, 1991) suggest that it may be difficult to disentangle a healthy sense of self from narcissistic self-views. In a study examining aggression following ego-threats, narcissism and self-concept clarity were uncorrelated predictors (Stucke & Sporer, 2002), suggesting that the consistency and clarity of one's self-concepts are separate from the valence of perceptions towards the self. In summary, both clear and positive perceptions of the self reflect positive psychological adjustment in adulthood, although high self-esteem is also related to narcissism. However, it is important to note that these studies have either assessed self-concept clarity or self-esteem separately, or in the same study, but without controlling for their potentially overlapping variance.

Self-esteem, self-concept clarity, and social behaviors. Associations among behaviors and self-esteem are sometimes inconsistent. Some studies suggest self-esteem functions as a gauge that helps to regulate behaviors, resulting in more prosociality at high levels (Leary, Tambor, Terdal, & Downs, 1995). However, others argue for either low or high self-esteem leading to aggressive behaviors. For instance, some scholars find that high and inflated (i.e., insecure, defensive) self-esteem is related to negative or antisocial behaviors and violence (Baumeister, 1996), whereas others find the same associations with low levels of self-esteem (e.g., Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005). However, the overlap in high scores on measures of self-esteem and narcissism may contribute to the positive associations with aggression. Specifically, it may be that a healthy (secure, non-inflated) sense of self is indicative of positive behaviors, whereas an inflated sense of self reflects underlying insecurities defended via aggression (Campbell, Bosson, Goheen, Lakey, & Kernis, 2007).

There is limited research on self-concept clarity and social behaviors, but some evidence suggests that self-concept clarity is positively related to prosocial behaviors, that is, behaviors that entail helpful, friendly, and cooperative acts. Bechtoldt and colleagues (2010) found that people with high self-concept clarity react more prosocially after experiencing conflict in an employment setting than those with low self-concept clarity, suggesting that high levels of self-concept clarity may buffer against negative behaviors such as aggression. Moreover, self-concept clarity and narcissism moderate the effect of negative performance feedback on anger and aggression, such that individuals with high self-concept clarity and low narcissism react with less aggression (Stucke & Sporer, 2002). Similarly, self-esteem is more highly related to anger and hostility for

people with low temporal stability of self-esteem (Kernis, Grannemann, & Barclay, 1989). Collectively, existing research suggests that it is worthwhile to examine the associations among self-esteem, self-concept clarity, and social behaviors; self-esteem may be more strongly related to aggression than self-concept clarity.

Academic relations with self-esteem and self-concept clarity. Research on the academic correlates of self-esteem has shown inconsistent associations, and only one study to date has examined self-concept clarity in an academic context. In fact, most self-concept clarity studies are conducted with college samples, where assessment of academic performance might result in a ceiling effect (i.e., most participants perform well). In the only study to date assessing academic correlates of self-concept clarity, Thomas & Gadbois (2007) found that self-concept clarity was negatively related to academic self-handicapping. That is, college students with high self-concept clarity scored low in the tendency to manage others' impressions and engage in behaviors that lower expectations of performance and allow for reduced effort in any given task. Associations among self-esteem and academic variables such as self-handicapping are inconsistent. For instance, depending on the study, self-esteem is sometimes positively, negatively, or unrelated to self-handicapping tendencies and general academic performance (Beck, Koons, & Milgram, 2000; Marsh & O'Mara, 2008; Midgely, Arunkumar, & Urdan, 1996; Thomas & Gadbois, 2007; Warner & More, 2004). These findings suggest that self-esteem alone may not provide the greatest understanding of academic adjustment. Rather, concurrent assessment of feelings towards the self (self-esteem) and the structure of self-beliefs (self-concept clarity) may provide more comprehensive information. Specifically, it may be that having a positively valence set of

self-concepts does not alone predict academic success, but adolescents who have a stable understanding of the self may be more prone to achievement. Whereas a too-high self-esteem may lead to inaccuracies in self-knowledge that lead to underperformance (e.g., Mueller & Dweck, 1998), self-concept clarity may create a stable understanding that allows one to know their competencies, academically or otherwise.

Stability of self-esteem. Research on the consistency of self-esteem indicates that an unstable or fragile self-esteem is negatively related to self-concept clarity (Kernis, Paradise, Whitaker, Wheatman, & Goldman, 2000) and linked to heightened hostility and depression (Kernis, 2005). That is, the degree to which self-esteem temporally varies is associated with negative adjustment, supporting the importance of measuring both consistency and valence of self-concepts. However, the stability of self-esteem is conceptually different from self-concept clarity, which reflects a consistent understanding of self-concepts regardless of their stability over time, or their valence (i.e., self-esteem). This study focused on self-concept clarity and self-esteem to understand how the structure and valence of self-concepts are related to adolescent adjustment.

Self-Esteem and Self-Concept Clarity: Developmental Considerations

The purpose of the current study was to extend research on self-concept clarity from adulthood to adolescence, a developmental stage between childhood and adulthood characterized by the onset of puberty (Steinberg & Lerner, 2004). Social development is strongly linked to self-representations during adolescence (Harter, 2006), where youth undergo biological and social transitions. Thus, understanding how both valence and structure of self-concepts influences positive development prior to adulthood may have

more meaningful implications for promoting well-being than examining self-esteem alone. Developmental research on self-esteem assesses both global and domain-specific feelings of self-worth, or perceived competence in academic, physical, or social domains (Harter et al., 1998), or across specific relationships (Ojanen & Perry, 2007). However, globalized trait-like self-esteem measures evidence valid and meaningful associations with several indices developmentally (Rosenberg, Schooler, & Schoenbach, 1989). In this study, self-esteem was examined as a global, trait-like construct reflecting the overall valence of the sense of self.

Self-esteem, identity, and adjustment in youth. As in adulthood, adolescent self-esteem is negatively related to negative affectivity (Lorr & Wunderlich, 1988), and positively related to secure attachment (Laible, Carlo, & Roesch, 2004). Self-esteem in youth can be conceptualized as a protective factor against negative psychological experiences. For instance, high levels of self-esteem are related to resiliency (e.g., experiencing high levels of stress but low levels of depression), and problem-focused rather than avoidant coping strategies (Dumont & Provost, 1999). Moreover, high self-esteem may protect against risky sexual behaviors (Paul, Fitzjohn, Herbison, & Dickson, 2000).

However, in line with adult research, associations between self-esteem and social behaviors in childhood and adolescence are less clear. Social behaviors in youth can be examined in terms of moving toward (prosociality), against (aggression), or away (withdrawal) from the social world, and these orientations are associated with adjustment into adulthood (Caspi, Elder, & Bem, 1987). While aggression can broadly be

conceptualized as any act, direct or indirect, with the intent of harming others (Card, Stucky, Sawalani, & Little, 2008), adolescent prosocial behaviors reflect kindness and generosity towards others (Bierman, Smoot, & Aumiller, 1993). Prosocial behaviors are thought to reflect high levels of social skills and are positively associated with peer acceptance, whereas deviant behaviors like aggression and social withdrawal are related to deficiencies in information processing and peer rejection (Crick & Dodge, 1994; Newcomb, Bukowski, & Pattee, 1993).

Given that aggressive behaviors typically reflect negative psychological adjustment whereas prosocial behaviors reflect positive adjustment in adolescence, they can be conceptualized as indicative of social or behavioral adjustment. Adolescents with overall positive feelings of self-worth tend to engage in prosocial behaviors (Eisenberg & Fabes 1998), in line with adult literature suggesting that self-esteem is important in regulating behaviors (Leary, 2003). However, self-esteem is also sometimes positively related to aggression and antisocial behaviors (Baumeister, Bushman, & Campbell, 2000), and this relationship is mediated by social dominance goals (Ojanen, Grönroos, & Salmivalli, 2005). Given the inconsistent links between self-esteem and behavioral adjustment in research in adolescence, other factors related to self-esteem may clarify these relationships. For instance, in line with adult research, narcissism, or perception of the self as superior to others, is positively related to self-esteem (Golmaryami & Barry, 2012), aggression, and striving for social dominance in adolescence (e.g., Barry, Grafeman, Adler, & Pickard, 2007; Ojanen, Findley, & Fuller, 2012). This suggests that during youth, there may be variations within high self-esteem individuals that are associated with either prosocial or aggressive behaviors. However, it may be that whereas

self-esteem can be related to narcissism, youth high in self-concept clarity may not have inflated feelings of self-worth.

Self-esteem and academic variables are inconsistently associated in adolescence (as in college samples). High self-esteem is sometimes positively related to academic achievement (but also sometimes negatively related; see, e.g., Hansford & Hattie, 1982; Valentine, Dubois, & Cooper, 2004 for meta-analyses), suggesting that positive feelings towards the self may facilitate engagement in school. Specifically, it may be that adolescents who feel confident and positive towards themselves are more likely to perceive themselves as more competent academically and focus more on achievement. However, positive associations between self-esteem and academic achievement are relatively small in magnitude (Rubin, Dorle, & Sandidge 1977) and the causal direction of the relationship is unclear. In fact, many scholars argue that self-esteem is an outcome rather than a predictor of school performance (i.e., performing well in school may lead to increased self-esteem). Furthermore, it is suggested that boosting self-esteem in youth can lead to academic underachievement (Stout, 2001); one may be less motivated to work hard if they are overly confident in their abilities (Mueller & Dweck, 1998). Moreover, attention has been directed to other factors that should be considered more heavily when predicting academic achievement, such as intellect (Skaalvik & Hagtvek, 1990). In summary, the association between self-esteem and academic adjustment remains unclear – assessing a structural component of the self such as self-concept clarity in this context may improve our understanding of this association.

An important related aspect of adolescent self-representations is the developmental task of establishing a stable identity. Whereas high self-esteem is considered to be a characteristic of identity achievement or commitment after exploration in adolescence (e.g., Orlofky, 1978), low self-esteem is related to identity diffusion (Cramer, 1997), reflecting an immature state characterized by impaired psychosocial development (e.g., Kroger, 2007). In opposition to the perspective that identity development occurs in concrete stages that fall into a continuum of week to strong, scholars find identity to be a dynamic, non-unidirectional, changing process (e.g., Meeus, Iedema, Helsen, & Vollebergh, 1999). Thus, identity development can be more difficult to assess than a construct such as self-concept clarity (Campbell et al., 1996), which may lead to greater understanding of the self. High self-concept clarity in youth would not necessarily reflect a stable or well-developed identity, but rather, a stable understanding of various self-related concepts that are included in one's identity at any given time. That is, even though identity may continue to change and develop throughout adolescence, the degree to which youth have a clear understanding of the self may remain stable and indicate positive adjustment.

Self-concept clarity in youth. The inconsistent findings among self-esteem and psychological, behavioral, and academic variables suggest that factors separate from self-esteem may be more helpful in understanding the influence of the self on adjustment (see, e.g., Baumeister, Campbell, Krueger, &Vohs, 2003). Although Campbell and colleagues emphasize the importance of concurrently examining both content (i.e., valence) and structural components of the self (Campbell et al., 2003), this research is still novel and has not been conducted in adolescents. Like in adults, self-concept clarity likely reflects

positive adjustment also in adolescence. For instance, given that self-concept clarity is related to prosocial responding to conflict in adults (Bechtoldt et al., 2010), it is reasonable to expect that youth high in self-concept clarity would also exhibit positive behavioral adjustment among peers at school.

The overall structure, or consistency and clarity of self-beliefs, is rarely examined in childhood or adolescence, although self-concepts across domains become increasingly integrated in adolescence (Harter, 2006). To the best of my knowledge, only two studies to date have applied the construct of self-concept clarity in adolescence. First, Wu, Watkins, & Hattie (2010) examined self-esteem and self-concept clarity in a one-year longitudinal sample of 12-21 year olds in Hong Kong. The authors found evidence for both the predictive value of self-esteem on self-concept clarity and of self-concept clarity on self-esteem. Thus, it appears that developmentally, associations between these constructs may be reciprocal. Moreover, the lack of age differences in self-concept clarity in this study suggests that self-concept clarity is likely a trait-like characteristic, as previously observed in adults.

However, adjustment correlates of self-esteem and self-concept clarity were not examined by (Wu et al., 2010) and the findings have not been replicated in Western cultures. Second, using a daily-diary design, Schwartz and colleagues (2010) found self-concept clarity to be mutually associated with identity reconsideration and commitment in 11-15 year olds (Schwartz et al., 2010). Specifically, self-concept clarity was linked to high levels of identity commitment and low levels of identity reconsideration. Fluctuations in identity were related to anxiety and depression, but associations among

self-concept clarity and adjustment constructs were not determinable. However, self-concept clarity was not the main focus of the study, which did not control for self-esteem or examine other indices of adjustment. Thus, further research is needed to evaluate the applicability self-concept clarity to the study of adolescent adjustment. At this time, the extent to which the structure (self-concept clarity) relative to the valence (self-esteem) of the self is uniquely related to adolescent psychological, behavioral, or academic adjustment remains unclear.

Present Study

This study examined the factor structure of self-esteem and self-concept clarity, and their unique associations with psychological, behavioral, and academic adjustment in middle school students. Inconsistent findings regarding the associations of self-esteem and social and academic adjustment suggest that examining separate factors related to self-esteem may be more helpful in understanding the influence of the self on adjustment (see, e.g., Baumeister, et al., 2003). Concurrent assessment of the valence (self-esteem) and structure (self-concept clarity) of self-concepts (Campbell et al., 2003) is likely to provide increasingly detailed understanding of links between the self and psychological, behavioral, and academic adjustment. However, this research is still novel and has not been conducted in adolescence. Since identity development and maintaining a positive and stable sense of self are critical developmental tasks for adolescents significantly associated with adjustment (e.g., Harter, 2006), this research is particularly worthwhile.

This study was expected to contribute to existing research on adolescent sense of self in association with adjustment in several ways. First, in line with adult research

suggesting self-concept clarity and self-esteem are separate constructs with unique associations with adjustment (e.g., Campbell, 1990; Bigler et al., 2001), this study is the first to differentiate the two using factor analytic techniques and provides empirical support for their conceptual distinctiveness. Secondly, given the novelty of the concurrent assessment of self-esteem and self-concept clarity in youth, a comprehensive assessment of their associations with indices of adjustment in three overarching domains (psychological, behavioral, and academic) was expected to significantly advance existing research on this topic. Third, whereas self-esteem has been examined in association with academic variables in youth, self-concept clarity is not understood in this regard. In the present study, associations among self-concept clarity and academic adjustment are explored. Finally, this study used a multiple-informant perspective (self- and teacher-reports) to examine social behaviors and academic adjustment in relation to self-concept clarity and self-esteem. To date, self-concept clarity has only been examined in relation to other self-reported indices of adjustment, leaving it unclear whether self-concept clarity can be used to explain individual variation in other (e.g., peer-, parent-, or teacher-) reported adjustment. Teacher-reported academic effort and social behaviors were collected in the present study to understand whether self-concept clarity may explain variation in adjustment observed by others, and these associations were expected to mimic those observed in self-reports.

Psychological adjustment was examined in terms of negative trait-affect (Watson, Clark, & Tellegan, 1988) and fearful temperament reflecting the tendency to experience heightened levels of fear and anxiety in situations (Rothbart & Jones, 1998). Negative affect and fearful temperament are associated with adjustment difficulties in youth (Cole,

Peeke, Dolezal, Murray, Canzoniero, 1999; Leve, Kim & Pears, 2005) and were expected to be negatively related to self-esteem and self-concept clarity. Moreover, based on existing research (Bushman & Baumeister, 1998), self-esteem was expected to be positively related to narcissism or inflated sense of self, whereas self-concept clarity was expected to be negatively or unrelated to narcissism. Behavioral adjustment was examined using self- and teacher-reported aggressive and prosocial behaviors. Research in adults suggests that self-concept clarity may be linked to positive behavioral adjustment (i.e., high levels of prosocial behaviors and low levels of aggression; Bechtoldt et al., 2010; Stucke & Sporer, 2002), whereas high self-esteem is likely linked to high levels of prosocial behaviors but potentially high or low levels of aggression (Eisenberg & Fabes 1998; Baumeister et al., 2000). Thus, similar expectations were expected to emerge in adolescence.

Academic adjustment was assessed in terms of academic self-efficacy, or the perception of being capable and able to succeed in school (Pajares, 1996), and teacher-reported academic effort, or how hard teachers perceive individual students to work in school (Gest, Domitrovich, & Welsh, 2005). Based on conceptualizations of self-esteem and self-concept clarity as indicative of positive social and emotional adjustment (Campbell et al., 1996), the negative relationship between self-concept clarity and academic self-handicapping in adults (Thomas & Gadbois, 2007), and inconsistent findings regarding self-esteem and academic variables (Marsh & OI'Mara, 2008), associations among self-concept clarity, self-esteem, and academic adjustment were explored.

Given that self-concept clarity may reflect a heightened level of maturity and cognitive ability to understand oneself, a mean-level grade difference was expected to emerge in which the older students (eighth grade) score higher than younger students in self-concept clarity. Self-esteem was not expected to differ by grade, but was expected to be higher in boys than girls, in line with gender-normative adjustment in adolescence (Rose & Rudolph, 2006). Additionally, self-esteem was expected to be higher in African American/Black students than in Caucasian/White students, in line with past research (for a meta-analysis, see Twenge & Crocker, 2002). Given the novelty of this research design, gender and ethnic differences in self-concept clarity were exploratory.

Hypotheses regarding mean-level differences in the adjustment variables were partially based on theory, and partially exploratory. In line with gender-normative psychological and behavioral adjustment during adolescence and the tendency for girls to be more relationally oriented than boys (Rose & Rudolph, 2006), girls were expected to score higher in prosocial behaviors and negative affect than boys, who are expected to score higher and aggressive behaviors. All other mean-level gender, grade, and ethnic differences were exploratory.

In summary, the present study examined the factorial validity of self-concept clarity and self-esteem and their unique associations with psychological, behavioral, and academic adjustment indices in youth. The present hypotheses were as follows.

Hypotheses

Hypothesis 1: A Confirmatory Factor Analysis (CFA) model in which the self-concept clarity and self-esteem items load on two separate factors was expected to fit the data better than a model in which all items loaded on a single factor.

Hypothesis 2: There were expectations regarding some mean-level differences by gender, grade, and ethnicity, and others were exploratory.

Hypothesis 2a: The mean level of self-concept clarity was expected to be higher in eighth than seventh and sixth grade students.

Hypothesis 2b: Self-esteem was expected to be higher in boys than girls, higher in African American/Black students than Caucasian/White students, and was not expected to differ by grade.

Hypothesis 3: Path analysis was expected to demonstrate unique associations of self-concept clarity with adjustment, while controlling for level of self-esteem.

Hypothesis 3a: Self-concept clarity was expected to be negatively related to negative affect and fearful temperament.

Hypothesis 3b: Self-concept clarity was expected to be negatively related to narcissism.

Hypothesis 3c: Self-concept clarity was expected to be positively related to self- and teacher- reported prosocial behaviors, and negatively related to self- and teacher-reported aggression.

Hypothesis 3d: Associations among self-concept clarity and self-reported academic efficacy and teacher-reported academic effort were exploratory, but were partially expected to show positive relationships.

Hypothesis 4: Path analysis was expected to demonstrate unique associations of self-esteem with adjustment, while controlling for level of self-concept clarity.

Hypothesis 4a: Self-esteem was expected to be negatively related to negative affect and fearful temperament.

Hypothesis 4b: Self-esteem was expected to be positively related to narcissism.

Hypothesis 4c: Self-esteem was expected to be positively related to self- and teacher- reported prosocial behaviors, and either positively or negatively associated with self- and teacher-reported aggression.

Hypothesis 4d: Self-esteem was expected to be either positively or unrelated to self-reported academic efficacy and teacher-reported academic effort.

Method

Participants

The sample included 321 adolescents (age 11-15) and 19 teachers from a middle school in the southeast of the United States. The school was ethnically diverse, and represented dominantly mid- to low socioeconomic statuses (SES). Eighty percent of the students qualify for free or reduced lunch. Participants were recruited by distributing consent forms through social studies classes at the school, with the help of teachers and administration. Participants in this study were students (adolescents) as well as teachers. To be included, student participants consented to the study and also had parental consents (provided in English and Spanish). Likewise, participating teachers provided written consents. For the student sample, inclusion criteria were fluency in English and being capable of completing a survey. Exclusion criteria, in turn, was enrollment in Exceptional Student Education (ESE) classes, and non-fluency in English (parents non-fluent in English had the opportunity to provide their consent using a Spanish consent form).

The student sample consisted of 56% girls, and 44% boys in the sixth (N = 105), seventh (N = 116), and eighth (N = 100) grades (overall N = 321). Participants represented a diverse sample with an ethnic composition of 33.6% Black/African American, 27.4% Hispanic, 18.7% Caucasian, non-Hispanic, 12.1% Multi-ethnic, and 1.5% other. Eleven participants (3.4%) did not know their ethnicity, and ten participants (3.2%) did not want to answer. The teacher sample consisting of homeroom and social

studies teachers. Homeroom teachers were recruited based on the increased amount of time spent daily with students relative to non-homeroom teachers, and social studies teachers recruited based on the school faculty's recommendations. No information about the teachers was collected, demographic or otherwise.

Design and Procedure

Cross-sectional survey data were collected from both students and teachers during school hours at the participating middle school in the Fall of 2011. Students were escorted out of their social studies classes to complete the survey in the library of the school. To ensure sufficient comprehension of the study material, trained graduate and undergraduate research assistants read each statement on the survey out loud while groups of 3-5 students read along and answered. Folders were placed between students to ensure privacy of responses for privacy. The survey took approximately 30-40 minutes to complete. Incentives included university-themed backpacks and small snacks, given to each student after survey completion. All study procedures were approved by the University of South Florida Institutional Review Board (Study # Pro 5367).

Teacher data on student adjustment was collected by administering folders with surveys for each individual student and instructions for completion. A list of student names were given to teachers based on their class schedule and according to the teachers' and students' willingness to participate in the study. Each teacher completed from 7-18 surveys, and only one survey was completed per student. Teachers completed a total of 231 surveys, for 68 sixth graders, 73 seventh graders, and 89 eighth graders. Teachers were given gift cards to a local bookstore as incentive for their participation.

Measures

For a comprehensive list of all items used in all scales in this study, please see the Appendix. The data were collected using both self- and teacher-report method. The following provides a list of measures by the reporter.

Self-Report Measures.

Self-concept clarity. The 12-item Self-Concept Clarity Scale (Campbell et al., 2002) was used to assess self-reported stability and coherence of self-concepts (e.g., "In general, I have a clear sense of who I am and what I am"). This self-report scale has evidenced sufficient reliability across several studies in adulthood, and was internally consistent in the present sample ($\alpha = .77$). This scale was also used in both of the existing studies assessing self-concept clarity in adolescence. Thus, it was determined that this was the most appropriate measure of self-concept clarity. Items were both positively and negatively worded on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree). Negatively worded items were reverse scored so that high levels of agreement reflected high self-concept clarity.

Self-esteem. The widely used ten-item Rosenberg Self-Esteem Scale was used to measure self-reported feelings of self-worth (Rosenberg, 1962; e.g., "At times I think I am no good at all"). Items were both positively and negatively worded on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree). Negatively worded items were reverse scored so that high levels of agreement reflected high self-esteem. In line with past studies, the self-esteem scale evidenced sufficient reliability ($\alpha = .84$).

Narcissism. Ten items from a self-report measure of adolescent narcissistic personality by Thomaes and colleagues (2008) were used to determine whether the

constructs of interest were differentially related to inflated self-views (e.g., "kids like me deserve something extra"). The initial item composition created an alpha coefficient of .59, suggesting low internal consistency, and the removal of one item ("it often happens that other kids get the compliments that I deserve" increased alpha to .62. Though still considered undesirable, in some cases alpha coefficients ranging from .60-.65 are not considered unacceptable (DeVellis, 1991). Given that this scale has not yet been validated in dominantly English-speaking populations of adolescents, analyses were continued with caution.

Negative affect. Three items measuring self-reported trait-like affect based on the Positive and Negative Affect Schedule (Watson et al., 1988) were included in the survey. Specifically, students rated their level of agreement with statements such as "In the past couple of weeks, I have felt sad". Items were on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree), and were internally consistent ($\alpha = .89$).

Fearful temperament. Temperamental fearfulness was measured using a six-item subscale from the adolescent temperament questionnaire (e.g., "I feel scared when I enter a darkened room at home"; Ellis & Rothbart, 2001). All items were worded such that high levels of agreement reflected high levels of fear. Items were on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree). Unfortunately, the fearful temperament subscale did not evidence acceptable internal consistency reliability ($\alpha = .59$). While this coefficient is below the minimum standard, it is similar to those found in other studies (e.g., Muris & Meesters, 2009). Therefore, this measure was used in further analyses while noting the obvious limitation and interpreting results with caution.

Social behaviors. Aggressive and prosocial behaviors were measured using both self- and teacher- reported information. Self-reported aggression included 12 items reflecting both overt or direct and visible (e.g., "I'm the kind of person who fights with others") and relational or indirect (e.g., "I'm the kind of person who spreads rumors about others") forms of aggression (Little, Jones, Henrich, & Hawley, 2003). The items creating the composite score of dispositional aggression (overt and relational) were internally consistent ($\alpha = .83$). Self-reported prosocial behaviors were assessed using a four-item scale based on Crick (1996) reflecting the tendency to engage in helpful and cooperative acts (e.g., "I'm the kind of person who doesn't hesitate to lend a hand"). All self-reported social behavior items were positively worded on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree). The self-reported prosocial behaviors scale was not internally consistent ($\alpha = .53$). With one item removed, the alpha coefficient only increased to .57.

Academic efficacy. Adolescents rated their level of agreement with five positively worded self-report items concerning their perceived academic competence taken from the Patterns of Adaptive Learning Survey (e.g., "Even if schoolwork is hard, I can learn it"; Patrick Hicks, & Ryan, 1997). Items were on a five-point scale (1 = strongly disagree; 5 = strongly agree). The academic efficacy scale was internally consistent ($\alpha = .84$).

Teacher-report measures.

Social Behaviors. Teacher reports of students' behaviors were collected using the Children's Social Behaviors Scale (Crick, 1996). Teachers rated the extent to which they agreed with each statement. Items were comparable to the self-report items used on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree). Additionally,

teachers were given the option of "I do not have enough information to answer" next to each item, but were encouraged to give a rating based on their perception for each statement. Seven aggressive behavior items reflected both overt and relational forms of aggression (e.g., "This student initiates or gets into physical fights with peers"; "This student spreads rumors or gossips about peers"), and were internally consistent ($\alpha = .91$). Four items measuring prosocial behaviors were internally consistent ($\alpha = .85$; e.g., "This student is helpful to peers").

Academic effort. Teachers rated the extent to which students exhibit effort in completing school work with four items taken from the FastTrack Project (e.g., "This student works hard at school"; Gest et al., 2005). Items were both positively and negatively worded on a five-point likert rating scale (1 = strongly disagree; 5 = strongly agree), and were internally consistent ($\alpha = .96$). Negatively worded items were reverse scored so that high levels of agreement reflected high levels of academic effort.

Results

Factorial Validity

Confirmatory Factor Analysis (CFA) was conducted using Mplus 5.2 (Muthen & Muthen, 1998-2007) to determine the factorial validity or statistical separateness of the self-concept clarity and self-esteem scales. Due the significant impact of sample size on the Chi-square fit statistic, model fit was evaluated based on the Comparative Fit Index (CFI; acceptable model fit = .95 or above) and Root Mean Square Error of Approximation (RMSEA; acceptable model fit = .05 or below; see Hu & Bentler, 1999). In the first model, the self-concept clarity items were set to load on one factor, the self-esteem items were set to load on a second factor, and the factors were allowed to correlate. This model fit the data well, $\chi^2(163) = 266.81$, CFI = .94; RMSEA = .05., and significantly better, $\Delta \chi^2 (1) = 292.58$, $p < .01$, than a one-factor model in which all self-concept clarity and self-esteem items were set to load on a single factor.

Mean-level Difference by Gender, Grade, and Ethnicity

To examine mean-level differences in the variables according to gender, grade, and ethnicity, multivariate analyses of variance (MANOVA) were conducted. There were significant multivariate effects on the set of study variables for gender, $\lambda = .91$, F (11, 213) = 1.90, $p < .05$ and ethnicity, $\lambda = .89$, F (11, 213) = 2.37, $p < .01$, and a marginally significant effect of grade, $\lambda = .92$, F (11, 213) = 1.75, $p = .07$. In order to determine

more detailed information regarding mean-level differences by gender, grade, and ethnicity, follow-up univariate procedures were conducted and are described below. See Table 1 for the overall means and standard deviations of the variables.

Gender. Follow up univariate analysis of variance (ANOVA) showed that boys scored higher in both self-concept clarity (M = 3.12, SD =.69), F (1, 319) =5.70, $p < .05$, and self-esteem (M = 3.88, SD = .72), F (1, 319) = 6.91, $p < .01$, than girls (respectively, M = 3.00, SD = .76; M = 3.64, SD = .86). Girls scored higher in negative affect (M = 2.66, SD =.1.38), F (1, 319) = 7.32, $p < .01$, fearful temperament (M = 3.39, SD =.83), F (1, 319) = 11.78, $p < .01$, and prosocial behaviors (M = 4.12, SD =.67), F (1, 319) = 3.87, $p < .05$, than boys (respectively, M = 2.25, SD = 1.31; M = 3.08, SD = .76; M = 3.96, SD = .75). No gender differences were found in narcissism, academic efficacy, self-reported aggression, or teacher-reported aggressive behaviors, prosocial behaviors, or academic effort.

Grade. Although there was only a marginal mean-level difference by grade, follow-up tests were conducted in order to provide information on what variables may be driving the trend in grade differences. Univariate ANOVA showed a marginal grade difference in self-concept clarity, F (2, 318) = 2.44, p = .08. Tukey's post-hoc comparisons indicated that eighth grade students (M = 3.22, SD =.79) scored marginally higher in self-concept clarity than sixth grade students (M = 3.00, SD =.70). Sixth grade students (M = 3.40, SD =.88) scored significantly higher than eighth grade students (M = 3.07, SD =.76) in fearful temperament, F (2, 318) = 4.24, $p < .05$.

Ethnicity. In order to examine mean-levels differences in the variables among ethnic groups, participants were categorized into five groups: African American/Black, Caucasian/White, Hispanic, Multi-Ethnic (multiple choices checked), and "Other". No significant ethnic differences emerged in self-concept clarity, significant group differences in ethnicity were found in self-esteem, F (4, 315) = 4.87, $p < .01$, negative affect, F (4, 315) = 3.02, $p < .05$, fearful temperament, F (4, 315) = 2.89, $p < .05$, narcissism, F (4, 315) = 8.47, $p < .01$, self-reported aggression, F (4, 315) = 3.69, $p < .01$, self-reported prosocial behaviors, F (4, 315) = 3.50, $p < .01$, and academic efficacy, F (4, 315) = 3.05, $p < .05$. There were also significant ethnic differences in teacher-reported academic effort, F (4, 315) = 3.07, $p < .05$, and a marginal difference in teacher-reported prosocial behaviors, F (4, 315) = 2.12, $p = .08$, and no difference in teacher-reported aggression.

Tukey's post-hoc analysis was used to further specify which ethnic groups differed significantly in their mean levels. In self-esteem and narcissism, African American/Black (respectively, M = 4.01, SD = .73; M = 3.57, SD = .58) students scored significantly higher than Caucasian/White (M = 3.61, SD = .78; M = 3.19, SD = .60), Hispanic (M = 3.62, SD = .80; M = 3.21, SD = .62), and "Other" (M = 3.46, SD = .95; M = 3.12, SD = .67) students, but did not differ from students who checked multiple ethnicities. African American (M = 3.12, SD =.78) students scored lower in fearful temperament than students who fell into the "other" category (M = 3.67, SD =.76), and lower in negative affect (M = 2.16, SD =.1.25) than Caucasian/White students (M = 2.82, SD = 1.48). In self-reported aggression, African American/Black (M = 1.87, SD =.73) students scored higher than Hispanic (M = 1.52, SD =.44) students. Hispanic students (M

= 4.25, *SD* = .58) scored higher than African American/Black (*M* = 3.97, *SD* = .76) students and Caucasian/White (*M* = 3.89, *SD* = .71) students in self-reported prosocial behaviors. In academic efficacy, African American/Black students (*M* = 4.30, *SD* = .75) scored higher than students in the "other" group (*M* = 3.77, *SD* = 1.03). Finally, Caucasian/White students scored lower in teacher-reported aggressive behaviors (*M* = 1.91, *SD* = .95) and higher in teacher-reported academic effort (*M* = 4.22, *SD* = 1.12) than African American/Black (respectively, *M* = 2.33, *SD* = 1.03; *M* = 3.64, *SD* = 1.25) students.

Zero-order Correlations among the Study Variables

All bivariate correlations among the study variables may be found in Table 1. Overall, correlations were in line with hypotheses. Self-concept clarity was positively related to self-esteem, negatively related to negative affect, fearful temperament, and self-reported aggressive behaviors, marginally negatively related to narcissism, and unrelated to self-reported prosocial behaviors and academic efficacy and teacher-reported aggressive and prosocial behaviors and academic effort. Self-esteem, in turn, was positively related to narcissism and self-reported prosocial behaviors and academic efficacy, negatively related to negative affect, fearful temperament, and self-reported aggressive behaviors, and unrelated to all teacher-reported variables.

Self-esteem and Self-concept Clarity: Concurrent Associations with Adolescent Adjustment

Path-modeling (Mplus 5.2; Muthen & Muthen, 1998-2007) was used to examine regression paths among the study variables. In the model, self-concept clarity and self-

esteem were used as concurrent predictor variables and the adjustment indices as outcome variables. Additionally, grade was included the model as a predictor variable to control for the potential effect of age on the examined associations. As in the above factorial analyses, model fit was evaluated based on the criteria by Hu & Bentler (1999). That is, a CFI of above .95 and an RMSEA of below .05 were used to determine acceptable model fit.

Based on the hypotheses, paths from the predictors (self-concept clarity, self-esteem, and grade) to all adjustment outcomes were estimated. The initial model included several non-significant paths that were removed from the model. Specifically, self-concept clarity was unrelated to self-reported prosocial behaviors ($\beta = .07$, $p = .29$), teacher-reported prosocial behaviors ($\beta = .04$, $p = .59$), and teacher-reported aggression ($\beta = -.09$, $p = .25$), self-esteem was unrelated to self-reported aggression ($\beta = .00$, $p = .96$), teacher-reported aggression ($\beta = .10$, $p = .23$), and teacher-reported academic effort ($\beta = -.06$, $p = .48$). Grade was unrelated to narcissism ($\beta = .04$, $p = .48$), academic efficacy ($\beta = .01$, $p = .79$), self-reported prosocial behaviors ($\beta = -.06$, $p = .29$), self-reported aggression ($\beta = -.02$, $p = .79$), teacher-reported prosocial behaviors ($\beta = -.10$, $p = .13$), and teacher-reported aggression ($\beta = .08$, $p = .22$).

The final model included only significant paths and fit the data well, $\chi^2(15) = 9.91$, CFI = 1.00; RMSEA = .00. The model is depicted in Figure 1. As seen here, grade was negatively related to negative affect, fearful temperament, and teacher-reported academic effort. Also, while controlling for self-esteem, self-concept clarity was negatively related to narcissism, negative affect, fearful temperament, academic efficacy,

and self-reported aggression, marginally positively related to teacher-reported academic effort, and unrelated to self- and teacher-reported prosocial behaviors and teacher-reported aggression (see Figure 1). Self-esteem, in turn, was negatively related to negative affect and fearful temperament, positively related to narcissism, academic efficacy, and self-reported prosocial behaviors, and unrelated to self- and teacher-reported aggression and teacher-reported prosocial behaviors (see Figure 1).

Multi-group model tests by gender (Jöreskog & Sörbom, 1993) were used to examine gender differences in these paths. These analyses yielded no significant differences. Thus, it was concluded that the paths depicted in Figure 1 were similar for adolescent boys and girls.

Table 1. *Means (M), Standard Deviations (SD), and Correlations among the study variables*

	Variable	1	2	3	4	5	6	7	8	9	10	11	M	SD
	Self-Reports													
1	Self-Concept Clarity	1											3.09	.74
2	Self-Esteem	.57***	1										3.75	.81
3	Negative Affect	-.52***	-.59***	1									2.48	1.36
4	Fearful Temperament	-.39***	-.38***	.30***	1								3.26	.82
5	Narcissism	-.10*	.31***	-.05	.07	1							3.33	.63
6	Aggressive Behaviors	-.39***	-.23***	.17***	.09*	.21***	1						1.71	.63
7	Prosocial Behaviors	.07	.23***	-.07	.03	.20***	-.38***	1					4.05	.71
8	Academic Efficacy	.04	.34***	-.18***	.04	.34***	-.26***	.39***	1				4.16	.82
	Teacher-Reports													
9	Aggressive Behaviors	-.03	.01	.05	-.02	.12*	.30***	-.18***	.06	1			2.12	.98
10	Prosocial Behaviors	.02	.01	.00	.05	-.05	-.14**	.21***	-.03	-.54***	1		3.74	.80
11	Academic Effort	.09	.00	.04	.08	-.09	-.19***	.15***	.09	-.56***	.61***	1	3.88	1.16

***$p < .01$, ** $p < .05$, * $p < .10$

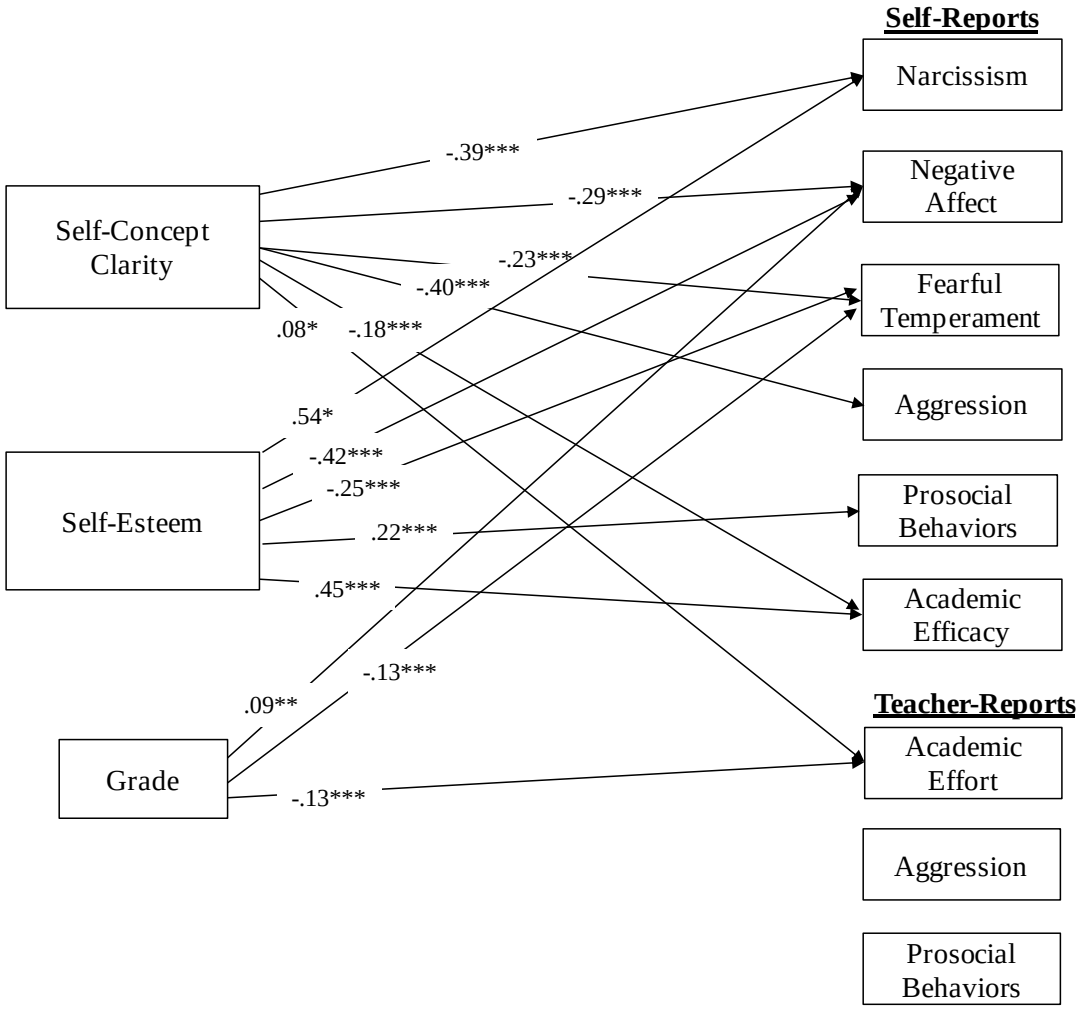

Figure 1. Path model of unique associations of self-concept clarity and self-esteem on the adjustment variables while controlling for grade

Discussion

This study sought to extend research on self-concept clarity from adulthood to adolescence. Self-concept clarity was examined concurrently with self-esteem and in relation to various indices of adolescent psychological, behavioral, and academic adjustment. Factorial validity of self-esteem and self-concept clarity was established and these constructs evidenced several unique associations with self- and teacher-reported adjustment. The present findings provide the first evidence for concurrent associations of self-esteem and self-concept clarity with adolescent adjustment and suggest that it is worthwhile to examine both the valence (self-esteem) and structure of self-concepts (self-concept clarity) to understand adjustment in detail. The findings are discussed in light of theoretical and practical implications for the study of adolescent social development.

Factorial Validity of Self-Concept Clarity and Self-Esteem

Using the most widely used measures to assess self-concept clarity (Campbell et al., 2002) and self-esteem (Rosenberg, 1960), factorial validity of the constructs was established in the current study. These findings indicate that these self-related perceptions are distinct constructs for adolescents and to the best of my knowledge, provide the first evidence for this distinction. Self-concept clarity and self-esteem were moderately positively correlated when examined as both observed (i.e., in correlations) and latent variables. Thus, on average, youth who feel positively about themselves also report higher clarity and consistency of self-related concepts. This is in agreement with the

initial theory and research on self-concept clarity in adulthood (Campbell, 1990) and extends this research to adolescence, suggesting that these constructs can be validly assessed prior to adulthood (see also Wu et al., 2010).

Self-Concept Clarity and Self-Esteem: Associations with Adolescent Psychological, Behavioral, and Academic Adjustment

As expected, self-concept clarity and self-esteem were positively related to psychological adjustment. Both at the bivariate level and while controlling for each other, self-concept clarity and self-esteem were negatively related to negative affect and fearful temperament. That is, youth reporting high levels of self-concept clarity and those reporting high levels of self-esteem reported low levels of lowered mood and fearfulness/anxiety. This in agreement with research in adults where self-concept clarity has been associated with psychological well-being consistently across studies (including positive trait affect; see Campbell et al., 1996), as well as with low levels of anxiety (Bigler et al., 2001). The findings also concur with positive associations observed between self-esteem and positive affect in adults as well as adolescents (e.g., Wood, Heimpel, & Michela, 2003). Collectively, and in line with existing theory (Campbell et al., 2003), these findings indicate that both the valence and structure of self-concepts reflect psychological well-being in youth.

High self-esteem may partially reflect inflated positive feelings towards the self, reflecting narcissism or the tendency to perceive oneself as superior to others (Campbell et al., 2007). Thus, it was hypothesized that while self-esteem would be positively related to narcissism, self-concept clarity reflecting the structure of self-concepts may be negatively or unrelated to narcissism. At the bivariate level, narcissism was positively

related to self-esteem, and was marginally negatively related to self-concept clarity. However, this negative association became significant when controlling for self-esteem. Thus, self-esteem and self-concept clarity evidenced divergent associations with narcissistic self-perceptions, especially when accounting for their unique variance. These findings suggest that youth with clear and consistent self-concepts may be less likely to perceive themselves as superior and above others than those with high self-esteem. Overall, the present findings concur with research in adolescence and adulthood that consistently finds a positive relationship between self-esteem and narcissism (Bushman & Baumeister, 1998; Thomaes et al., 2008). However, to the best of my knowledge, the current findings are the first to assess self-concept clarity and narcissism concurrently while accounting for self-esteem.

At the bivariate level, both self-concept clarity and self-esteem were negatively related to aggression. In the path model, self-concept clarity was negatively related to aggression, whereas self-esteem was unrelated to aggression. The current findings show that when controlling for self-concept clarity, the relationship between self-esteem and aggression becomes non-significant. This is in line with research suggesting the level of self-esteem affects aggression differently depending on its stability or structure in adulthood (Kernis, 2005). That is, self-esteem may be linked to aggression only when it is unstable. Moreover, both self-concept clarity and the stability of self-esteem moderate the relationship between negative performance feedback and anger or hostility (Kernis et al., 1989; Stucke & Sporer, 2002), further suggesting that structure of the self may affect aggression. Although the present study does not address all complexities regarding the varying positive (Baumeister, 1996) and negative (Donnellan et al., 2005) associations

among self-esteem and aggression, the present findings do suggest that self-concept clarity is related to low levels of aggression regardless of self-esteem. That is, while the associations between self-esteem and aggression may vary, a coherent structure of the sense of self is negatively related to aggression and thus, may potentially buffer against or decrease the likelihood of externalizing behaviors.

Unexpectedly, self-reported prosocial behaviors were positively related to self-esteem, and unrelated to self-concept clarity. This pattern of findings was observed consistently at the bivariate level, as well as in the path model. While unexpected, these findings may indicate that the structural aspects of the self operate independently of the tendency to engage in friendly or helpful behaviors. Specifically, although high self-concept clarity may be linked to low levels of negative behaviors like aggression, it may not, by itself, necessarily occur with positive behaviors during adolescence. In adults, participants with higher self-concept clarity react more prosocially in conflict situations than those with lower self-concept clarity (Bechtoldt et al., 2010). The present findings suggest that this association may be different in adolescence where peer groups and social pressures affect adolescents' behaviors to a greater extent than adulthood (e.g., Pellegrini & Long, 2002). For instance, it may be that individual-level factors do not sufficiently explain variation in social behaviors. Thus, future research is needed to determine the association between self-concept clarity and prosocial behaviors.

The rationale for the present study was partially based on inconsistent associations among self-esteem and social behaviors in research. For instance, in adolescence and adulthood, whereas some scholars suggest it is necessary to feel positively towards the self to engage in adaptive, positive behaviors (Eisenberg & Fabes,

1998; Leary, 2003), others suggest that high and inflated self-esteem is related to antisocial behaviors and aggression, particularly following ego-threat (Baumeister et al., 2003; Thomaes et al., 2008). Whereas the link between self-esteem and social behaviors has received much research attention, self-concept clarity is not well understood in this context. Moreover, self-concept clarity has not been previously examined concurrently with social behaviors prior to adulthood.

In the present study, findings concerning self-concept clarity were mixed. On one hand, self-concept clarity was linked to low levels of aggression, whereas self-esteem was not. On the other, self-esteem was positively related to prosocial behaviors, whereas this relationship was non-significant for self-concept clarity. The overall pattern of findings is in line with a recent experimental field study in which increasing self-affirmation via focusing on one's core defining traits reduced narcissistic aggression in middle school students (Thomaes, Bushman, Orobio de Castro, Cohen, & Denissen, 2009). Self-concept clarity does not necessarily reflect an active focus on personality traits. However, it may be that active self-reflection leads to greater self-concept clarity, which may in turn positively affect social behaviors. Future research may utilize self-concept clarity as a meaningful aspect of intervention efforts.

On a partially exploratory basis, associations of self-concept clarity and self-esteem with academic adjustment (self-reported academic efficacy and teacher-reported academic effort) were examined. It was partially expected that both constructs may reflect positive academic indices; however, the findings were mixed. Whereas self-esteem was positively related to academic efficacy consistently at the bivariate level as well as when controlling for self-concept clarity, self-concept clarity was unrelated to

academic efficacy at the bivariate level and negatively so when controlling for self-esteem. Furthermore, self-esteem was unrelated to teacher-reported academic effort, whereas self-concept clarity was marginally positively related to this construct. While speculative, individuals with high and potentially inflated self-esteem may over-report their academic competence, whereas those with high self-concept clarity may be more likely to accurately report their skills. In fact, research suggests that academically successful students do not always have high self-esteem, and are more likely to think critically about themselves (Pullmann & Allik, 2008). However, it is unclear why self-concept clarity was related to low levels of perceived academic competency, and whether this association may be specific to the present context (i.e., the school data were collected in). Thus, future research should attempt to increase understanding of whether and how the structure of the self matters in/for academic performance and effort.

Particularly in adolescence, aspects of the self are meaningfully tied to academic performance and engagement (Marsh & Craven, 2006). However, associations among self-esteem and academic adjustment are unclear, and research on self-concept clarity has rarely focused on the academic context. As an exception, Thomas and Gadbois (2007) found a negative relationship between academic self-handicapping and self-concept clarity in college students. However, this finding may not generalize to adolescence, where the school setting is more relevant to the entire population. Given the mixed findings between self-esteem and academic variables in the present study and past research (Marsh & O'Mara, 2008; Valentine et al., 2004), it is important to further disentangle how structure and valence of self-concepts may affect academic achievement and adjustment. For instance, these associations may be complex and depend on a

number of other factors, such as school or peer environments (Eccles & Roeser, 2011). However, results of this study are promising in that they may contribute to future research that could attempt to clarify and attempt to resolve issues in schools, such as the sometimes harmful effects of boosting self-esteem, including underachievement (Baumeister et al., 2003; Stout, 2002).

Most associations among the psychological and behavioral variables emerged in the present study as expected. Negative affect and fearful temperament were positively correlated, and self- and teacher-reported aggressive and prosocial behaviors were inversely related to one another (i.e., high aggression was associated with low prosocial behaviors across reporters). However, unexpectedly, self-concept clarity and self-esteem were unrelated to teacher-reported aggressive and prosocial behaviors. While speculative, this may potentially be due to a lack of shared method variance (i.e., weaker associations across reporters than between the same reporters). Alternatively, these may reflect a genuine disconnect between student-reported self-processes and teachers' perspectives on behaviors. In fact, this is in agreement with research that finds null relationships between self-esteem and teacher-reported behaviors and social status (Adams, Ryan, Ketsetzis, & Keating, 2000). Alternatively, the lack of associations found between teacher-reported behaviors and self-concept clarity and self-esteem may simply reflect a lack of power from the total number of surveys completed by teachers versus students (i.e., fewer teachers than students completed surveys). Since self- and teacher-reported aggressive and prosocial behaviors were positively correlated, student and teacher perspectives on behaviors seem relatively consistent.

Differences by Gender, Grade, and Ethnicity

Boys scored higher in self-esteem than girls, reflecting the overall higher levels of internalizing difficulties driven by social and biological factors experienced by girls during adolescence (Rose & Rudolph, 2006). Moreover, boys reported a higher level of self-concept clarity than girls. This was partially unexpected but could be explained by the same justification in that adolescent boys may not experience as many self-related problems as adolescent girls, potentially including the ability to have both well-structured and positively valenced self-concepts. Regarding the associations among the study variables, no differences by gender were observed. Thus, relationships among self-concept clarity, self-esteem, and the adjustment variables likely function similarly across boys and girls during youth.

As expected, girls scored higher in negative affect and self-reported prosocial behaviors than boys. Girls also scored higher in fearful temperament. These findings concur with the model of gender differences in peer-relational processes proposed by Rose and Rudolph (2006), which posits that these differences are observable because of an emotional-behavioral adjustment tradeoff between genders. Specifically, girls are more likely to experience emotional difficulties but behave positively, whereas boys are more like to experience behavioral difficulties but have fewer emotional problems (Rose & Rudolph, 2006). However, in the present study there were no gender differences in self- or teacher-reported aggressive behaviors.

Level of self-esteem was consistent across grades, but eighth grade students scored marginally higher than sixth grade students in self-concept clarity. While noting that this is only a trend, it is understandable that older middle school adolescents are more

cognitively able to have a clear understanding of their selves. This difference, as well as longitudinal trajectories of self-concept clarity across a broader age range should be clarified in future research. Fearful temperament was higher in sixth than eighth grade students. Given that sixth graders are at the bottom of the social hierarchy and transitioning from elementary to middle school, they may report higher levels of fear and social anxiety than older and more experienced students in middle school.

Grade was used as a predictor in the model in order to control for any age-related maturation that may contribute to relationships among self-concept clarity, self-esteem, and the adjustment indices. In line with research suggesting that overall sadness or depression increases across adolescence (e.g., Hankin, Abramson, Moffitt, McGee, Silva, & Angeli, 1998), grade was positively related to negative affect. Moreover, grade was also negatively related to teacher-reported academic effort. This finding could reflect the tendency for adolescents to become less academically motivated throughout middle school (for a review, see Anderman & Maehr, 1994).

On an exploratory basis, I also examined mean-level differences by ethnicity in the study variables. The mean-level of self-concept clarity did not differ on average across ethnic groups, but self-esteem and narcissism were highest in African American/Black students. Thus, whereas cultural differences may contribute to the tendency to experience more positively valenced self-concepts, they may not affect structure or consistency or self-beliefs. In one study, the average level of self-concept clarity and its correlation with self-esteem were found to be lower in Eastern versus Western cultures (Campbell et al., 1996). However, the present study is the first to examine ethnic differences in self-concept clarity among ethnic groups within the U.S.

Furthermore, African American/Black students scored higher in academic efficacy than those classified in the "other" group, lower than the "other" group in fearful temperament, and lower than Caucasian/White students in negative affect. Collectively, these findings suggest a tendency for African American/Black youth to feel more positive and confident about themselves and report higher levels of psychological adjustment. Research suggests that individuals in minority groups experience more negative adjustment such as depression than those in the majority (Plant, & Sachs-Ericsson, 2004), which would contradict the present findings. However, data was collected from a population in which the typical majority group (i.e., White/Caucasians) was in the minority, which could potentially explain these differences. African American/Black students also scored lower in teacher-reported academic effort than Caucasian/White students, and higher in self-reported aggression than Hispanic students, who in turn scored higher in self-reported prosocial behaviors than African American/Black and Caucasian/White students. These findings were not a core aspect of the present study, but warrant future research.

Implications, Limitations, and Future Directions

Current findings extend research on self-concept clarity from adulthood to adolescence, and suggest that self-esteem and self-concept clarity are separate constructs with unique associations with adjustment during middle school. Supporting research in adulthood arguing for the importance of assessing both valence and the structure of the self in association with adjustment (Campbell, 1990; Kernis et al., 1989; Stucke & Sporer, 2002), the present findings suggest that this is worthwhile also during

adolescence. At this stage of development, identity development and self-related perceptions are particularly meaningful (Marcia, 1980; Rosenberg et al., 1989).

Research has shown that youth who actively engage in self-affirmation or reflection are better adjusted than those who do not (e.g., Thomaes et al., 2009). While the present study did not measure self-reflection, the associations with self-concept clarity map onto these findings in that perhaps self-reflection promotes self-concept clarity, which is in turn linked to self-esteem and adjustment. Moreover, the recent push in American schools and homes to boost children and adolescents' self-esteem has been criticized because of the lack of regard for the accuracy of their beliefs or the potential harmful resulting consequences (Baumeister et al., 2003; Stout, 2001). It is clear that self-esteem alone is not solely indicative of positive adjustment. Thus, educators and practitioners could focus attention on other individual level factors to create a better understanding of how the self is linked to adjustment in adolescence. The present study lends support for self-concept clarity as a potential contributing factor to positive development that warrants future empirical research.

Despite meaningful implications, the present study had limitations. First, some associations were not as expected. For instance, while controlling for self-esteem, self-concept clarity was negatively rather than positively related to academic self-efficacy, suggesting that adolescents with a clear sense of self are less likely to feel competent in academic settings than those with low self-concept clarity. Given that this directly opposes the theory of high self-concept clarity being linked to positive adjustment, future research should seek to shed light on this relationship. Moreover, although self-concept clarity in adulthood is related to prosocial responses to conflict (Bechtoldt et al., 2010), in

the present study self-concept clarity was unrelated to self- and teacher-reported prosocial behaviors. This non-significant relationship should be interpreted with caution given the low reliability of the self-reported prosocial behaviors scale. However, while speculative, it may suggest that individuals high in self-concept clarity do not necessarily have a prosocial disposition, but may be more likely to be prosocial in certain situations such as conflict, which are inherently challenging and call for attention and effort. Future research should attempt to understand this relationship and provide further information on associations between self-concept clarity and social behaviors.

Secondly, although several meaningful associations among self-esteem, self-concept clarity, and adjustment were observed, these were cross-sectional in nature. Thus, the results do not allow understanding of directionality of associations or the development of self-concept clarity. Future longitudinal research in this area is needed to clearly explicate associations among the valence and structure of self-concepts and adjustment over time in adolescence. Moreover, research should examine self-concept clarity across a broader age range to understand to what degree to which children and adolescents have structured self-concepts. For instance, high school adolescents may benefit more from high self-concept clarity given their age and increased maturity level.

Third, self-reported measures of fearful temperament and prosocial behavior scales did not evidence sufficient reliability. Also, the alpha coefficient for the narcissism scale was lower than desired. It is unclear what caused the low reliability of these scales. Thus, although mostly consistent with existing research, findings including these variables should be replicated. Additionally, data collection was presently limited to one school. Therefore, the generalizability of the findings should be tested in the future.

Finally, some responses and associations may have been subjected to self-report bias, especially concerning social behaviors. Given that self-concept clarity and self-esteem were unrelated to teacher-reported behaviors, future research could assess perspectives from others such as peers.

Despite these limitations, this study contributes to the understanding of the adolescent self by demonstrating that valence and structure of self-concepts are separate and uniquely associated with adjustment. Further, these findings provide meaningful theoretical and practical implications for the study of adolescent psychosocial and academic adjustment. This study is among the first to examine self-concept clarity in adolescence, and to the best of my knowledge the first to examine its associations with adjustment in youth, and to establish factorial validity of self-concept clarity concurrently with self-esteem. Finally, this study is the first to utilize other-reported social behaviors and academic adjustment in association with self-concept clarity.

Conclusion

The present study supports the conceptual and statistical distinction between valence (self-esteem) and structure (self-concept clarity) of self-concepts in youth. Given the novelty of this study, future research should replicate all results and examine concurrent associations of self-concept clarity and self-esteem with other variables. Furthermore, if self-concept clarity is established as a consistently positive construct in youth, future intervention research could attempt to understand what factors may increase the clarity and consistency of self-concepts and beliefs. The self-concept clarity scale evidenced acceptable internal consistency in adolescence, suggesting that self-concept clarity may be reliably measured outside of adulthood in younger samples. Some unexpected findings emerged, and the study was not without limitations. Therefore, future research is needed to more thoroughly understand the findings. However, results suggest that self-concept clarity and self-esteem have unique associations with positive adjustment, divergent relationships with narcissism, and are differently related to behavioral and academic adjustment. Thus, it is worthwhile to examine self-concept clarity and self-esteem, or more generally structure and valence of the self concurrently in adolescence. Findings provide an avenue for future research to better understand the complex associations between the self and psychosocial and academic adjustment in youth.

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Appendix

Self-Report Measures (rated on Likert scale):

Self-Concept Clarity (Campbell et. al., 1996)

- My beliefs about myself often conflict with one another.
- On one day I might have one opinion of myself and on another day I might have a different opinion
- I spend a lot of time wondering about what kind of person I really am.
- Sometimes I feel that I am not really the person that I appear to be
- When I think about the kind of person I have been in the past, I'm not sure what I was really like
- I seldom experience conflict between the different aspects of my personality
- Sometimes I think I know other people better than I know myself
- My beliefs about myself seem to change very frequently
- If I were asked to describe my personality, my description might end up being different from one day to another day
- Even if I wanted to, I don't think I could tell someone what I'm really like
- In general, I have a clear sense of who I am and what I am
- It is often hard for me to make up my mind about things because I don't really know what I want

Self-esteem (Rosenberg, 1965)

- At times I think I am no good at all
- On the whole, I am satisfied with myself
- All in all, I am inclined to feel that I am a failure
- I take a positive attitude toward myself
- I feel that I have a number of good qualities
- I feel I do not have much to be proud of
- I am able to do things as well as most other people
- I certainly feel useless at times
- I feel that I am a person of worth, at least on an equal plane with others
- I wish I could have more respect for myself

Negative Affect (Lee & Little, 2011)

- In the past couple of weeks, I have felt unhappy
- In the past couple of weeks, I have felt down
- In the past couple of weeks, I have felt sad

Fearful Temperament (Ellis & Rothbart, 2001)

- I get frightened riding with a person who likes to speed
- I worry about my family when I'm not with them
- I worry about getting into trouble
- I am nervous of some of the kids at school who push people into
- lockers and throw your books around
- I worry about my parent(s) dying or leaving me
- I feel scared when I enter a darkened room at home

Academic Efficacy

- I'm certain I can master the skills taught in school this year
- I'm certain I can figure out how to do the most difficult schoolwork
- I can do almost all the work in school if I don't give up
- Even if schoolwork is hard, I can learn it
- I can do even the hardest work in this school if I try

Prosocial Behavior:

- I help others
- I don't hesitate to lend a hand when someone need it
- I'm friendly and easily approachable
- I cooperate and share with others

Aggression (overt and relational; Little et al., 2003)

I'm the kind of person who…

- fights with others
- pushes, kicks, or punches others
- says mean things to others
- puts others down
- threatens others
- takes things from others
- tells my friends to stop liking someone
- tells others I won't be their friend anymore
- keeps others from being in my group of friends
- says mean things about others
- ignores others or stops talking to them
- gossips or spreads rumors about others

Teacher-Report measures (rated on Likert scale):

Overt and Relational Aggression (Crick, 1996)

-This student hit, shoves, or pushes others
-This student threatens to hit or beat up children
-This student initiates or gets into physical fights with peers
-When this student is mad at a peer, she or he gets even by excluding the peer from his or her clique or group
-This student spreads rumors or gossips about some peers
-When angry at a peer, this student tried to get other children to stop playing with the peer or to stop liking the peer
-When mad at a peer, this student child ignores the peer or stops talking to them

Prosocial Behavior (Crick, 1996)

-This student says supportive things to peers
-This student tried to cheer up peers when they are sad or upset about something
-This student is helpful to peers
-This student is kind to peers

IRB Approval

USF
UNIVERSITY OF
SOUTH FLORIDA

DIVISION OF RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-5618

9/15/2011

Tiina Ojanen, Ph.D.
Psychology
4202 E. Fowler Avenue

RE: **Expedited Approval** for Initial Review
IRB#: Pro00005367
Title: Adolescent Social Adjustment at School

Dear Dr. Ojanen:

On 9/14/2011 the Institutional Review Board (IRB) reviewed and **APPROVED** the above referenced protocol. Please note that your approval for this study will expire on 9/14/2012.

Approved Items:
Protocol Document:

Protocol	0.06

Consent/Assent Documents:

Time 1 Parental Consent.pdf	0.01
Time 1 Student Assent.pdf	0.01
Time 1 Teacher Consent.pdf	0.01
Time 2 Parental Consent.pdf	0.01
Time 2 Student Assent.pdf	0.01
Time 2 Teacher Consent.pdf	0.01

Please use only the water marked/stamped consent form(s) found under the "Attachment Tab" in the recruitment of participants.

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(7) Research on individual or group characteristics or behavior (including, but not limited to,

research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note, the informed consent/assent documents are valid during the period indicated by the official, IRB-Approval stamp located on the form. Valid consent must be documented on a copy of the most recently IRB-approved consent form.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John A Schinka, Ph.D.

John A. Schinka, Chairperson
USF Institutional Review Board

Cc: Christina Calandro
USF IRB Professional Staff