

The centrality of the self-concept construct for psychological wellbeing and unlocking human potential: Implications for child and educational psychologists

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Abstract

Self-concept has been established as one of the most important constructs in the social sciences and as fundamental to psychological wellbeing. It is also an important mediating factor that facilitates the attainment of other desirable psychological, behavioral, and educational outcomes that underpin human potential. As such interventions that foster self-concept will also foster psychological wellbeing and influence desirable psychological and educational outcomes, whereas those that undermine self-concept are likely to have negative effects on these constructs. This paper provides psychologists with an overview of recent advances in self-concept theory and research in order to inform their work with children, families, and schools. Firstly, theoretical advances in conceiving self-concept as a multidimensional hierarchical construct and associated developments of multidimensional instruments are summarized. Secondly, a rationale for the centrality of the self-concept construct for psychological wellbeing and findings from key research studies are presented to identify important directions in research and practice, as well as the salience of the self-concept construct for wellbeing. Finally, based on a synthesis of the findings from this article, the implications of this body of research for theory, research, and practice are discussed.

Introduction

There is a revolution sweeping psychology, one that emphasizes positive psychological wellbeing and focuses on how healthy, normal, and exceptional individuals can get the most out of life (e.g. Dweck, 2006; Seligman & Csikszentmihalyi, 2000; Vallerand, Blanchard, Mageau, Koestner, Ratelle, Leonard et al., 2003). The self-concept construct is vital to psychological wellbeing as people who feel good about themselves and their abilities are likely to be more effective than individuals with low self-concepts. Self-concept also facilitates other important aspects of psychological wellbeing including happiness, motivation, anxiety, depression, and academic striving behaviours. Recently, self-concept has also been demonstrated to share a mutually reinforcing relation with academic achievement such that prior academic self-concept causally influences subsequent achievement, and prior achievement causally influences subsequent self-concept

(Marsh & Craven, 2006). These new research results provide an influential platform for developing self-concept interventions to address timely educational issues (e.g. underachieving students, school bullying) and offer new tangible solutions for positive psychology approaches in maximizing psychological wellbeing from an early age. As such, self-concept is a key psychological wellbeing construct in and of itself that has been demonstrated to impact on a wide range of critical wellbeing outcomes and serve as an influential platform for enabling full human potential.

Whilst self-concept is one of the oldest constructs in the social sciences, its history has been fraught with controversy. Initially a general or overall self-concept, typically referred to as self-esteem, was postulated that was theoretically conceived as a unidimensional construct. Lack of attention to within-construct issues whereby the structure and nature of the construct is defined and

then theoretical models are rigorously tested (see Messick, 1989; Shavelson, Hubner & Stanton, 1976, for more general discussion) led to a plethora of between-construct studies whereby the relation of self-concept to other constructs was examined prior to adequate attention to definition. This has resulted in inaccurate theory and research findings, and consequently inappropriate psychological and educational practice. As such, despite a plethora of mixed research findings, this history has contributed to the widespread belief that enhancing self-esteem was a panacea of all ills such that psychologists, educators, and researchers have tended to 'throw' a unidimensional self-esteem construct (general self-concept, see Marsh, Craven & Martin, 2006) into interventions and research to 'see what happens'. More recently, research over the last three decades has demonstrated that the self-concept construct is actually multidimensional and hierarchical in nature and that the processes of the construct are complex in nature. This body of theory, research, and practice has led to significant advances in our understanding of how self-concept is central to psychological wellbeing as well as how it facilitates a range of adaptive behavioural, educational, and social outcomes.

This paper provides psychologists with an overview of recent advances in self-concept theory and research in order to inform their work with children, families, and schools. First, recent theoretical advances in conceiving self-concept as a multidimensional, hierarchical construct and associated developments of multidimensional instruments are summarized. Second, a rationale for the centrality of the self-concept construct for psychological wellbeing is presented in the context of findings from key research studies to elucidate the salience of the self-concept construct for wellbeing. Finally, based on a synthesis of the findings from this article, the implications of this body of research for theory, research, and practice are discussed.

An overview of theoretical and measurement advances in self-concept research

The multidimensionality of the self-concept construct – The Shavelson, Hubner and Stanton (1976) model.

Historically, research has investigated a unidimensional or self-esteem/ general self-concept construct rather than positing different facets of self-concept. Reviews of self-concept research written prior to the 1980s (e.g. Burns, 1979; Shavelson et al., 1976; Wells & Marwell, 1976; Wylie, 1979) noted that self-concept research was dominated by a-theoretical, poor quality measurement instruments, methodological problems, and paradoxical findings. Shavelson et al. (1976), after reviewing theoretical and empirical research, developed a new theoretical model of self-concept. They also suggested a possible representation of a multidimensional model of self-concept with general-self at the apex, divided into academic and non-academic components that are further divided into more specific components. Academic self-concept was represented by subject specific facets of self (e.g. mathematics and English). Non-academic self-concept was divided into social, emotional, and physical self-concepts that were further divided into more specific components (e.g. physical self-concept was divided into physical ability and physical appearance). The facets proposed were only considered a possible representation of the hierarchical model, as their emphasis was on the multidimensionality of the structure of self-concept rather than on the number of specific facets. At the time, Shavelson et al. (1976) were unable to measure the multiple facets of self-concept posited by their model since multidimensional measurement instruments were unavailable. However, the basic assumption of this model asserted that self-concept was a multidimensional construct and provided a blueprint for a new generation of self-concept theory, research, and practice.

The development of multidimensional self-concept instruments

More recently researchers have developed instruments that are designed to measure specific facets of self-concept to test self-concept theory. Based on the Shavelson et al. (1976) model, Marsh developed the Self Description Questionnaire (SDQ) instruments (Marsh, 1990c; 1990d; 1992c). These instruments are used throughout the world (e.g. they have been translated into 20 different languages; included in the National Education Longitudinal Survey administered in 1000 US high schools, the US National Model Schools project, and US Head Start programs; utilized in the OECD cross-national study of schooling outcomes; involved in a national evaluation of Hong Kong high schools; and used in more than 300 PhD theses). Hattie (1992) considers these instruments 'the best set of measures available' (pp.82–83). Similarly, in a definitive review of self-concept instruments, Byrne (1996b) emphasized the sound psychometric properties of these instruments and concluded that, 'in using the SDQ-I, researchers, clinicians, counsellors, and others interested in the welfare of preadolescent children can feel confident in the validity of interpretation based on responses to its multidimensionally sensitive items' (p. 117). Like her evaluation of the SDQ-I (for preadolescents, Marsh, 1990e), Byrne had similarly positive evaluations of the SDQ-II (adolescent, Marsh, 1990c), SDQ-III (late-adolescent/young adult, Marsh, 1992d) versions, and the more specialised Academic SDQ and Physical SDQ instruments (also see Boyle, 1994; Byrne, 1984; Hattie, 1992; Wylie; 1989).

Numerous factor analyses have identified the facets of self-concept that these instruments measure. Results of factor analyses provide strong support for the multidimensionality of self-concept, the facets, and the hierarchical structure of self-concept. These multidimensional measuring instruments, based explicitly on the Shavelson et al. (1976) model, have generated empirical

results that have been used to support, refute, or revise the instrument and the theory upon which it is based. Reviews (e.g. Byrne, 1996a; Marsh, 2007; Marsh & Craven, 2006) support the multifaceted structure of self-concept and indicate that self-concept cannot be adequately understood if its multidimensionality is ignored.

The terms self-concept and self-esteem have historically, and to the present day, been used interchangeably. Some researchers have suggested that self-esteem is the affective component of self, whereas self-concept refers to the descriptive or cognitive component, but there is little or no empirical support for this distinction. Shavelson et al. (1976) argued that, theoretically, both self-esteem and specific components of self-concept, such as academic, social, and physical self-concepts are evaluative and recent measurement research has supported this contention (e.g., Marsh, Craven, and Debus, 2000). Similarly, Swann, Chang-Schneider, and Larsen (2007) concluded that there is little basis for such distinction as self-esteem and self-concept involve both cognitive and affective components, noting that researchers in related fields (attitude researchers, interpersonal expectancy researchers, trait theorists) have not found this to be a useful distinction. Hence, on the basis of this theoretical and empirical research, we reserve the term self-esteem for the global component of the self-concept that appears at the top the Shavelson et al. model. As such, self-esteem (also referred to as general self-concept) is operationalised as a higher-order factor in a multidimensional model of self-concept. Our operational definition is also supported by higher-order factor analysis studies (see Marsh & Hattie, 1996, for an overview), which have demonstrated that global measures of self-esteem correlate at about .95 with the highest-order factor (representing the apex of Shavelson et al.'s (1976) hierarchical model) of responses to multidimensional self-concept instruments. It is also important to note that multidimensional self-concept theorists (e.g.

Byrne, 1996a, 1996b; Hattie, 1992; Marsh & Craven, 2006; Vispoel, 1995) integrate specific *and* global self-esteem dimensions of self-concept, such that global self-esteem is a component of the multidimensional self-concept structure (Marsh, Craven & Martin, 2006). Hence, for the purposes of this study, we use the term 'self-esteem' to refer to the global component of self-concept and to distinguish between this and specific components of self-concept (e.g. physical, social, academic).

Marsh/Shavelson model

The multidimensionality of self-concept posited in the Shavelson et al. (1976) model is now well established. However, subsequent research has indicated that the hierarchy is more complicated, leading to revisions in the model (Marsh, Byrne & Shavelson, 1988; Marsh and Shavelson, 1985; Vispoel, 1995) whereby additional second-order academic facets were required. Near zero correlations were present in the research literature for verbal and mathematics self-concept. These findings led to the revision of the original Shavelson et al. model such that self-concepts in particular subject areas form two separate second-order academic factors – verbal/academic and math/academic self-concepts – rather than a single factor. Hence, with the development of better measurement instruments, new theoretical understandings of the multidimensional and hierarchical nature of the self-concept construct have emerged and this research has provided the basis from which the centrality of the self-concept construct for psychological wellbeing and its relation to other variables have been elucidated. For example, the multiple dimensions of self-concept are so distinct that they cannot be explained in terms of a single global component and have dramatically different patterns of relations with different background variables, outcomes, and experimental manipulations.

A research-based rationale for the centrality of the self-concept construct for psychological wellbeing and maximising human potential

Self-concept – A construct of pervasive significance

The development of a positive self-concept is prized as desirable for psychological wellbeing in and of itself, as well as a mediator of an array of other valued outcomes (e.g. educational and career aspirations, increased adoption of adaptive striving behaviors, and improved achievement/performance; see Marsh, 2007). The universal importance of self-concept as one of the most important constructs in the social sciences is highlighted by the regularity with which self-concept enhancement is identified as a major focus of concern in diverse settings, including education, child development, mental and physical health, social services, industry, and sport and exercise. This pervasive influence of self-concept has resulted in many educational policy statements throughout the world listing the development of a positive self-concept as one of the key goals of education (e.g. Ministerial Council on Education, Employment, Training, and Youth Affairs, 1998). Hence, a positive self-belief is valued as a 'hot' variable that makes good things happen, and is fundamental to the realization of full human potential in a range of settings.

Given the establishment of the multidimensional model of self-concept, we emphasize in presenting research-evidence that the most powerful effects of self-concept are based on specific components of self-concept as opposed to self-esteem or general self-concept. Specific facets of self-concept are most logically related to specific outcomes (a multidimensional perspective), rather than to global measures of self-esteem (a unidimensional perspective). For example, a recent meta-analysis of self-concept intervention studies (O'Mara, Marsh, Craven & Debus, 2006) has extended previous research by accounting for the multidimensionality of the self-concept construct. O'Mara et al. computed a separate

effect size for each self-concept outcome considered in the study. The different components of self-concept were then classified as being directly related, indirectly related, or unrelated to the intervention. Results showed that effect sizes were substantially larger for self-concept scales that were directly related to the intervention and substantially smaller for those components that were not. The mean effect size was 0.51 and indicated that overall children and adolescents are benefiting from self-concept enhancement interventions. They also found that more effective interventions incorporated appropriate praise and/or feedback strategies into the programme, especially strategies that were contingent upon performance, attributional in nature, and goalrelevant. The authors also found that interventions targeting children and adolescents with diagnosed problems produced larger effect sizes. They recommended that rather than using generic, non-specific interventions that try to simultaneously improve all aspects of children's and adolescents' self-evaluations, that an array of interventions that target domain-specific facets of self-concept needs to be developed to enhance psychological wellbeing (also see Craven & Bodkin-Andrews, 2006; Craven, Marsh & Burnett, 2003).

Self-concept makes good things happen and underpins human potential – Academic behaviours
Research has demonstrated that the attainment of a positive academic self-concept mediates positive influences on multiple aspects of psychological and other desirable educational outcomes including academic behaviors such as persistence on academic tasks, academic choices, educational aspirations, and subsequent academic achievement (e.g. Byrne, 1996a, 1996b; Marsh, 1990a, 1992a; Marsh, 2007; Marsh & O'Mara, 2008; Marsh, Byrne & Shavelson, 1988; Marsh & Yeung, 1997a, 1997b). For example, Skaalvick and Rankin (1995) showed that math and verbal self-concepts positively influenced intrinsic motivation, effort, and anxiety.

Course selection

Research also suggests that prior academic self-concept influences subsequent course selection. In an early review of research in this area Meece, Parsons, Kaczala, Goff and Futterman (1982) concluded that there was considerable theoretical and empirical support for a link between academic self-concept and subject course selection. Eccles, Adler, Futterman, Goff, Kaczala and Meece (1983) offered further support for self-concept having a direct effect on coursework selection plans. Meece, Wigfield and Eccles (1990) found a relation between school grades and mathematics self-concept with intentions to take further coursework in mathematics and subsequent school grades the following year. In a further path analysis of the data that demonstrates the power of the self-concept construct, Marsh and Yeung (1997b) found that coursework selections were significantly impacted upon by prior mathematics self-concept and the effect of prior grades was non-significant. They compared and contrasted the impact of nine facets of academic self-concept and academic achievement (measured by school grades) on subsequent coursework selection (including both required and elective subjects that high school students would undertake in the following year, whether or not they really wanted to do each of these courses next year, and whether they were required to do the course or had the opportunity to elect to do the course). They found that specific self-concept facets significantly influenced wanting to do a course in the subject area the following year, and actually enrolling in the course. Marsh and Yeung (1997b) concluded that 'self-concepts in specific school subjects are significantly related to subsequent coursework selection – to choices of what subjects students want to study and the choices of what they actually do pursue. These results demonstrate that academic self-concept contributes to the prediction of important outcome variables beyond what can be explained by academic achievement' (p.709).

Critical outcome variables

Research based primarily on databases of nationally representative samples measuring a diversity of educational and psychological variables collected on multiple occasions during high school and after graduation has demonstrated that changes in critical outcome variables (e.g. test scores, school grades, coursework selection, educational and occupational aspirations, subsequent university attendance, bullying, relations with parents, self-concept, and locus of control) were related to the effects of academic self-concept. For example, this research demonstrated that academic self-concept influences subsequent academic accomplishments (Marsh, 1990a; Marsh & Craven, 2006), attending single-sex versus co-educational high schools (Marsh, 1991c) attending and performance in academically selective schools (Craven, Marsh & Print, 2000; Marsh & Hau, 2003), gaining part-time employment (Marsh, 1991a), and participation in extracurricular activities (Marsh & Kleitman, 2002). Collectively, this research shows that the positive and negative effects of critical life events on subsequent outcomes are mediated through their significant effects on self-concept.

Mental health

On the basis of their review of mental health research, Marsh, Parada and Ayotte (2004) related responses from the SDQII instrument and the Youth Self-Report, a leading instrument measuring adolescent mental health problems. They found that correlations between the 11 factors of self-concept and eight mental health problems varied substantially (+0.11 to -0.83; mean $r = -0.35$). Externalising factors (delinquent, aggressive behaviours) were almost unrelated to physical, appearance, and peer self-concepts and only modestly related to global self-esteem, but were substantially related to parents and honesty self-concepts (-0.46 to -0.70). Internalising behaviours were substantially related to emotional stability self-concept (-0.71, -0.83) and, to a lesser

extent, self-esteem. Furthermore, self-esteem was able to uniquely explain only 3 per cent of the covariation between mental health and self-concept factors, whereas specific components of self-concept accounted for 97 per cent of this covariation. Thus, this study indicates that a unidimensional perspective is not viable in mental health research and demonstrates the salience of a multidimensional self-concept construct for psychological wellbeing.

Big five personality factors and wellbeing

Most personality researchers still rely solely on measures of self-esteem, rather than multiple dimensions of self-concept. Trautwein, Lüdtke, Marsh, Köller and Baumert (2006) demonstrated a well-defined multivariate pattern of relations among multiple dimensions of self-concept, personality (e.g. Big Five personality factors; Costa & McCrae, 1985), wellbeing (positive and negative affect; Watson, Clark & Tellegen, 1988); life satisfaction (Diener, 1994), and academic criteria (e.g. school grades and course selection). Importantly the percentage of variance in each of the Big Five and wellbeing factors that could be uniquely explained by the specific self-concepts was substantial, varying between 23 per cent and 60 per cent ($M = 39$ per cent) for the Big Five factors and between 14 per cent and 19 per cent ($M = 17$ per cent) for the wellbeing factors. Almost no variance in any of the Big Five factors or the wellbeing factors could be uniquely explained by self-esteem, again demonstrating the salience of the self-concept constructs for personality, wellbeing, and life satisfaction.

Effects of self-concept on performance following failure

A positive self-concept has been demonstrated to be particularly beneficial for anxiety, impaired motivation, and poor performance following failure or negative feedback in specific subject areas (e.g. Dodgson & Wood, 1998; Greenberg et al., 1992; Sommer & Baumeister, 2002). For example,

Dodgson and Wood (1998) found that participants with high self-esteem who were given failure feedback were better able to access strengths than students who received no feedback. However, participants with low self-esteem who received failure feedback were better able to access weaknesses than were participants who received no feedback. Similarly, Sommer and Baumeister (2002) found that following a negative prime, high self-esteem participants persisted longer on an unsolvable anagram than participants with low self-esteem, and actually performed better on a solvable anagram task. Bernichon, Cook and Brown (2003) also demonstrated that individuals with low self-esteem after failure feedback, compared with those with high self-esteem, are particularly concerned with self-protection. They concluded that global and domain-specific self-concepts interact in ways that influence responses to evaluative feedback. Related studies in Germany have demonstrated that students with low academic self-concepts are more debilitated by failure than students with high academic self-concepts. For example, Eckert, Schilling and Stiensmeier-Pelster (in press) found that failure feedback resulted in poorer subsequent performance for students with low academic self-concepts than for students with high academic self-concepts. Hence these experimental intervention studies suggest a positive self-concept is particularly important for facilitating subsequent performance following failure.

Self-concept causally impacts on performance and achievement

In a highly influential review commissioned for *Psychological Science in the Public Interest*, Baumeister, Campbell, Krueger and Vohs (2003; also see Baumeister, Campbell, Krueger & Vohs, 2005) posed the question: 'Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?'. Based on a review of research Baumeister et al. (2003) concluded that 'self-esteem *per se* is not the social panacea that many people hoped it was'

(p.38), a point reiterated by Baumeister et al. (2005) who concluded 'that efforts to boost people's self-esteem are of little value in fostering academic achievement or preventing undesirable behaviour' (p.84).

Marsh and Craven (2006) critiqued this review from a multidimensional perspective of the self-concept construct. Theoretically, as clearly articulated in the Shavelson et al. (1976) model, prior academic accomplishments are important in the formation of subsequent academic self-concept. With recent advances in structural equation models (SEM), it has been possible to test the causal ordering of academic self-concept and achievement. Marsh and Craven (2006), based on a body of causal ordering research, evaluated the Reciprocal Effects Model (REM). In the REM, a prediction is made that academic self-concept shares a reciprocal and mutually reinforcing causal relation with academic achievement, such that prior academic self-concept causes subsequent academic achievement and prior academic achievement causes subsequent academic self-concept. For example, Marsh (1990a) was one of the first methodologically stronger studies to provide defensible evidence for the effect of prior academic self-concept on subsequent academic achievement. Marsh (1990c) tested the causal ordering of academic self-concept and academic achievement with data from the large, nationally representative US Youth in Transition database. SEM analyses were conducted on responses from the 1456 students who had complete data at T1, T2, and T3. At T2, academic self-concept was influenced by academic ability and T1 academic self-concept, but not T1 grades. At T2 school grades were influenced by T1 academic self-concept and by T1 school grades. Similarly, school grades at T3 were influenced significantly both by T2 academic self-concept and by T2 grades. These findings provide strong support for predictions of the REM.

More recent research has demonstrated that support for the REM generalizes to

different cultural/national settings including Hong Kong students (Marsh, Hau & Kong, 2002); large samples of German students (Marsh & Köller, 2003; Marsh, Köller & Baumert, 2001; Marsh, Trautwein, Lüdtke, Köller & Baumert, 2005); and research based on French-speaking Canadian primary students (Guay, Marsh & Boivin, 2003). Hence, there is strong cross-national and cross-cultural support for the REM.

There were some key areas of difference between the Marsh and Craven (2006) and Baumeister et al. (2003, 2005) reviews. First, Baumeister et al.'s conclusions were based on publications from 1960 to 1990, whereas Marsh and Craven's were based on studies undertaken almost entirely since 1990, and typically since 2000. Second, research reviewed by Baumeister et al. was based largely on multiple regression, which was typical of research of the pre-1990 era, whereas we (Marsh & Craven, 1997, 2006) focused on studies that used structural equation models. Thirdly, Baumeister et al. focused on an implicit unidimensional perspective of self-concept by focusing their review solely on self-esteem whereas we took an explicitly multidimensional perspective. This body of research demonstrates that particularly in educational psychological research, diverse academic outcomes are systematically related to academic self-concept, but nearly unrelated (or even negatively related) to global self-esteem and other non-academic components of self-concept.

It is also important to note that a recent comprehensive meta-analysis undertaken by Valentine and colleagues (Valentine & DuBois, 2005; Valentine, DuBois & Cooper, 2004) has found consistent support for the REM and little or no effect between achievement and self-esteem (also see Trautwein et al., 2006). These results imply that interventions that successfully produce changes in the appropriate area of self-concept and achievement are more likely to have long lasting effects than studies that focus exclusively on academic self-concept or academic achievement alone.

Self-concept implicated in significant educational issues of our time

Understanding school bullying Primary school bullying is a pervasive problem with long-term psychosocial consequences for bullies, victims, classmates, and communities. Intervention to combat school bullying is vital given the pervasiveness and long-term consequences of bullying for academic failure, mental health costs, and anti-social behaviour. The antecedents of aggression are known to be early in development (Patterson, DeBaryshe & Ramsey, 1989) and bullying has been identified as one of the links in the chain from childhood to adulthood violence (Olweus, 1997). Victimising peers in the school has been identified as an early behaviour that contributes to the development of long-term antisocial behaviour patterns, and is a precursor for antisocial behaviour and criminality. Bullying and victimisation in the school have been universally recognised as damaging to the psychological, social, academic, and even physical development of children (Marsh, Parada, Craven & Finger, 2004; Pellegrini, 2004). Australian and international research has shown that for victims, repeated bullying can cause psychological distress, severe depression, psychopathology, and deteriorating physical health (e.g. Kaltiala-Heino, Rimpela, Marttunen, Rimpela, Rantanen, 1999; Ma, 2004; Marsh, Parada, Craven & Finger, 2004; Rigby, 1996; Rigby & Slee, 1993; Sullivan, 2000).

What we have found striking in our research is the similarity between bullies and victims on a wide variety of psychological constructs (attitudes toward bullying, roles taken when confronted with a bullying situation, strategies for coping with problems, inability to control anger, depression, life event stress, and, importantly, low self-concept on most of the different areas of self-concept measured, as well as self-esteem; also see Kaltiala-Heino, et al., 1999). Whereas similarities between bullies and victims may seem surprising from historical perspectives, they are readily encapsulated in

our new reciprocal effects model. Our results (Marsh et al., 2004) show that for secondary students, depression and low self-concept lead to being a victim. Thus, positive self-perceptions provide a strategic approach to developing psychological tools and resiliency, to protect students from becoming victims. Particularly important is the negative correlation of parent relations self-concepts with bullying, suggesting the importance of good parent relationships and the crucial role of parents. However, drawing upon our reciprocal effects model, our results also extend these findings by demonstrating that positive self-perceptions also protect students from becoming bullies.

Jenkins (1996; also see Clayton, Ballif-Spanvill & Hunsaker, 2001) forcefully argues that bullies are created and trained in school environments which condone, reinforce, and encourage their behaviours and that victims are often ignored, ridiculed, and further victimised due to social myths which suggest that the physical and emotional torture they are suffering is just part of 'growing up'. Anti-bullying interventions that only target individual students are largely ineffective, while programs that target the whole-school community (students, teachers, and parents) in ways that change the school ethos are more effective. Self-concept theory (e.g. Marsh & Craven, 1997; Marsh, Parada, Yeung & Healey, 2001; Marsh et al., 2004) provides a theoretical explanation. Bullying and associated anti-social behaviours are tacitly condoned by the school community as a 'natural phenomenon'. Bullies achieve a personal sense of power, social self-concept, and self-esteem by victimising other students, and may receive social reinforcement from classmates for bullying. As long as the school ethos allows bullies to enhance their self-concept through such anti-social behaviour, interventions aimed at individual students are unlikely to be successful. When the school ethos is altered so that bullying is seen as unacceptable and is no longer condoned – particularly by classmates – bullying behaviours will no longer contribute to a positive

self-concept. Once the school ethos has been changed, cognitive strategies aimed at individual students (bullies, victims, and so-called innocent bystanders who unwittingly reinforce bullying) will be more effective and assist to foster psychological wellbeing. These research breakthroughs, applying self-concept theory to the problem of bullying, have important practical implications for developing new and effective anti-bullying programs, as well as theoretical implications for advancing self-concept theory and anti-bullying research and practice (Marsh et al., 2004; Parada, 2002).

Educating gifted students

Throughout the world there is an increasing emphasis on how to educate academically gifted students most effectively. Current gifted students are expected to become future leaders in all fields. The appropriate education of academically gifted students can be argued on the basis of 'excellence and equity' issues, of enriching the intellectual climate and strengthening the socio-economic fabric of nations, and of the cultivation of talent in all facets of society. Hence it is critically important that academically gifted students are provided with the best education possible.

A plethora of academically selective schools have been recently established in countries around the world. Despite the pervasive significance of a positive self-concept for psychological wellbeing and the realisation of full potential, our research has shown that students in high ability schools have lower academic self-concepts when placed in academically selective settings than in heterogeneous settings – a phenomenon known as the big-fish-little-pond effect (BFLPE; e.g. Craven, Marsh & Print, 2000; Marsh, Chessor, Craven & Roche, 1995; Marsh & Hau, 2003; Marsh, Koller & Baumert, 2001; Marsh, Seaton et al., in press). The validity and generalisability of the consequences of the BFLPE have been demonstrated consistently in numerous empirical studies and cross-culturally in 39 countries (see Seaton et

al., in press; Marsh & Hau, 2003). Additionally, students in academically selective schools tend to select less demanding courses, have lower grade point averages, and have lower long-term educational and occupational aspirations, than do equally intelligent students in non-selective schools (Craven et al., 2000; Davis, 1966; Marsh, 1991b, 1991c; Marsh & Yeung, 1997b). Given results emanating from the REM (see earlier discussion) and the pervasive significance of the self-concept construct for psychological wellbeing and other important educational outcomes, perhaps these results are not surprising. However, what is clear is that self-concept plays a pivotal role in fostering the wellbeing and potential of gifted students, and that interventions and innovative strategies are needed in order to alleviate the BFLPE and to educate our best and brightest students. The BFLPE also has important implications for the education of students with special educational needs in segregated settings, whereby self-concept can be adversely affected by placement in mainstream settings (see Tracey, Marsh & Craven, 2003; also Marsh, Tracey & Craven, 2006).

Educating disadvantaged students

Enhancing self-concept is also important for addressing social inequities experienced by disadvantaged groups. For example, Indigenous peoples, internationally, are one of the most disadvantaged groups on multiple socio-economic indicators. In Australia, national reports and all Australian governments have acknowledged that Aboriginal people are significantly educationally disadvantaged resulting in implications for further education, employment, and life opportunities. The New South Wales Department of Aboriginal Affairs has emphasized that 'the key reason for Aboriginal children being disadvantaged educationally, is that the current education system fails to acknowledge the vital importance of maximizing Aboriginal children's self-concept as the critical link between schooling and successful outcomes' (Burney, 2001, p.1).

Similarly, researchers have concluded that Aboriginal students need to 'develop a strong sense of personal identity and self-esteem' (NBEET, 1995, p.xi) and the Australian Royal Commission into Aboriginal Deaths in Custody has identified low self-esteem as a critical variable contributing to Aboriginal disadvantage and deaths. Craven and Bodkin-Andrews (2006), in their review of Indigenous mental health, have advocated that the enhancement of the self-concept construct for Indigenous students may provide a potential turning point for intervention, and have called upon counsellors, practitioners, and policy makers to implement interventions. Hence, in Australia, enhancing self-esteem has been acknowledged as a vital key to improving educational outcomes for Aboriginal Australians. Other research has demonstrated the pervasive significance of the self-concept construct for other disadvantaged groups such as ethnic groups (McInernery, in press) and children with mild intellectual disabilities (Marsh, Tracey & Craven, 2006).

Physical fitness

Sedentary lifestyles and physical inactivity constitute a worldwide health problem for which interventions have had limited success. Physical self-concept has been demonstrated as being related to physical fitness and health, body image, and related eating disorder issues, competitive and co-operative environments, and long-term health-related physical activity. Enhancing physical self-concept has been demonstrated to improve physical fitness and physical activity. As such enhancing physical self-concept can stimulate important lifestyle changes in adaptive physical activity and participants' enjoyment thereof that can break the 'inactivity' cycle.

To assist individuals toward regular physical activity, more consideration must be given to the quality of their experience, their motivation, and how they feel about themselves in relation to physical activity. Hence, researchers and practitioners have increas-

ingly emphasized psychological constructs such as subjective experience, enjoyment, self-concept, intrinsic motivation, and quality of life as important means to increasing physical activity and wellbeing. For example, Marsh and Peart (1988) demonstrated that interventions that simultaneously seek to enhance both these psychological constructs and physical activity are more successful than interventions that focus exclusively on physical activity.

Implications for theory, research, and practice

In this paper we have emphasized that self-concept is one of the most all-pervasive characteristics of humans that is central to psychological wellbeing and a powerful mediating influence on psychosocial constructs that underpin human potential. Clearly, self-concept makes a difference; people who think positively about themselves achieve more, are healthier, happier, and get more out of life. Hence, enhancing self-concept is fundamental to psychological wellbeing and maximizing human potential, from early development and school achievement, to physical/mental health and wellbeing, to enabling potential of our most disadvantaged groups and gifted groups. As such self-concept provides a promising platform for informing interventions to address some of the social issues of our time.

We have argued that a positive psychology approach is a potentially potent new preventative strategy as well as a basis for developing potentially powerful new interventions. We have also emphasized that work with individuals, schools, and families needs to capitalize upon the best available theory and research. Our research has led us to the conclusion that self-esteem cannot adequately reflect the diversity of specific self-concept domains. 'If the role of self-concept research is to better understand the complexity of self in different contexts, to predict a wide variety of behaviour, to provide outcome measures for diverse interventions, and to relate self-concept to other con-

structs, then the specific domains of self-concept are more useful than a general domain' (Marsh & Craven, 1997, p.191).

Theory, research, and practice are also intertwined in that weaknesses in one area will affect the others. We consider it vital that outdated unidimensional models are replaced with multidimensional models of the self-concept construct. Current theory and research indicate that child and educational psychologists should be utilizing, as diagnostic and intervention evaluation tools, multidimensional self-concept measurement instruments with demonstrated psychometric properties for the client group targeted. Instruments selected should also measure the specific facets of self-concept most relevant to intervention. The latter allows accurate assessment of both individual self-concepts and enables educators and psychologists to test the impact of interventions on specific domains of self-concept most relevant to the goals of the intervention. For example, if a child is experiencing reading difficulties then the ideal intervention according to the results of REM research is for psychologists to enhance reading self-concept and skills simultaneously and also educate teachers in the use of these techniques. Similarly, if school bullying is an issue that needs to be addressed, targeting self-esteem is of little value, but working with teachers and families to enhance prosocial self-concept and behaviour simultaneously provides a strong foundation for intervention. Furthermore, from the perspective of the psychology of success, implementing preventive strategies that simultaneously enhance skills and specific domains of self-concept across key drivers of life potential (e.g. reading, mathematics, schooling engagement, prosocial behaviour) seems a potentially potent strategy with pervasive applications for a diversity of groups and settings (e.g. home, school, further education). The REM suggests that this is particularly important for enabling individuals to optimise their potential, and has value-added impacts on a range of other desirable

outcomes that underpin wellbeing. In addition, research demonstrating that high self-concept serves as a protective factor has practical implications for preventing a variety of wellbeing issues (e.g. maladaptive anxiety, impaired motivation, depression, low parental self-concept).

We therefore advocate that self-concept needs to be recognised as vital to psychological wellbeing, and as a construct that makes good things happen in and of itself, it serves as a mediator of desirable outcomes. Given its pervasive significance for wellbeing, the self-concept construct provides a potential turning point for developing both individual and school-based interventions target-

ing the needs of schools, in addressing and preventing family, educational, and psychosocial problems, and in responding to other critical issues of our time. Our intention in writing this article is to provide a helpful starting point for assisting psychologists to address these challenges and in so doing, foster psychological wellbeing and optimal human potential.

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References

- Baumeister, R.F., Campbell, J.D., Krueger, J.I. & Vohs, K.D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4(1).
- Baumeister, R.F., Campbell, J.D., Krueger, J.I. & Vohs, K.D. (2005). Exploding the self-esteem myth. *Scientific American*, 292, 84–92.
- Bernichon, T., Cook, K.E. & Brown, J.D. (2003). Seeking self-evaluative feedback: The inter-active role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology*, 84, 194–204.
- Boyle, G.J. (1994). Self-Description Questionnaire II: A review. *Test Critiques*, 10, 632–643.
- Burney, L. (2001). Unpublished letter to NSW Minister for Aboriginal Affairs, NSW Department of Aboriginal Affairs, Sydney.
- Burns, R.B. (1979). The general/academic self-concept nomological network: A review of construct validation research. *Review of Educational Research*, 54, 427–456.
- Byrne, B.M. (1984). The general/academic self-concept nomological network: A review of construct validation research. *Review of Educational Research*, 54, 427–456.
- Byrne, B.M. (1996a). Academic self-concept: Its structure, measurement, and relation to academic achievement. In B.A. Bracken (Ed.) *Handbook of self-concept* (pp.287–316). New York: Wiley.
- Byrne, B.M. (1996b). *Measuring self-concept across the lifespan: Issues and instrumentation*. Washington, DC: American Psychological Association.
- Clayton, C.J., Ballif-Spanvill, B. & Hunsaker, M.D. (2001). Preventing violence and teaching peace: A review of promising and effective antiviolence, conflict-resolution, and peace programs for elementary school children. *Applied and Preventive Psychology*, 10, 1–35.
- Costa, P.T., Jr. & McCrae, R.R. (1985). *The NEO Personality Inventory manual*. Odessa, FL: Psychological Assessment Resources.
- Craven, R.G. & Bodkin-Andrews, G. (2006). New solutions for addressing indigenous mental health: A call to counsellors to introduce the new positive psychology of success. *Australian Journal of Guidance and Counselling*, 16(1), 41–54.
- Craven, R.G., Marsh, H.W. & Burnett, P.C. (2003). Cracking the self-concept enhancement conundrum: A call and blueprint for the next generation of self-concept enhancement research. In H.W. Marsh, R.G. Crave & D.M. McInerney (Eds.), *International advances in self research*, Vol 1, pp.67–90. Greenwich, CT: Information Age.
- Craven, R.G., Marsh, H.W. & Print, M. (2000). Selective, streamed and mixed-ability programs for gifted students: Impact on self-concept, motivation, and Achievement. *Australian Journal of Education*, 44, 51–75.
- Davis, D.Y. (1966). The campus as a frog pond: An application of theory of relative deprivation to career decisions for college men. *American Journal of Sociology*, 72, 17–31.
- Diener, E. (1994). Assessing subjective wellbeing: Progress and opportunities. *Social Indicators Research*, 31, 103–157.
- Dodgson, P.G. & Wood J.V. (1998). Self-esteem and the cognitive accessibility of strengths and weak-

- nesses after failure. *Journal of Personality and Social Psychology*, 75, 178–197.
- Dweck, C.S. (2006). *Mindset*. New York: Random House.
- Eccles (Parsons), J., Adler, T.F., Futterman, R., Goff, S.B., Kaczala, C.M., Meece, J.L. et al. (1983). Expectations, values and academic behaviors. In J.T. Spence (Ed.), *Perspectives on achievement and achievement motivation*, pp.75–146. San Francisco: Freeman.
- Eckert, C., Schilling, D. & Stiensmeier-Pelster, C. (in press). Einfluss des Fähigkeitsselfkonzepts auf Intelligenz und Konzentrationsleistung [Effects of academic self-concept on achievement in tests of intelligence and mental concentration]. *German Educational Psychology Journal*.
- Greenberg, J., Solomon, S., Pyszczynski, T., Rosenblatt, A., Burling, J., Lyon, D., et al. (1992). Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety-buffering function. *Journal of Personality and Social Psychology*, 63(6), 913–922.
- Guay, F., Marsh, H.W. & Boivin, M. (2003). Academic self-concept and academic achievement: Development perspectives on their causal ordering. *Journal of Educational Psychology*, 95, 124–136.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Erlbaum.
- Jenkins, J. (1996). *Resolving violence: An anti-violence curriculum for secondary students*. Melbourne: ACER.
- Kaltiala-Heino, R., Rimpela, M., Marttunen, M., Rimpela, A. & Rantanen, P. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: school survey. *British Medical Journal*, 319, 348–351.
- Ma, X. (2004). Who are the victims? In C.S. Sanders & G.D. Phye (Eds.), *Bullying: Implications for the classroom*. Orlando, FL: Elsevier Academic Press.
- Marsh, H.W. (1990a). The causal ordering of academic self-concept and academic achievement: A multiwave, longitudinal path analysis. *Journal of Educational Psychology*, 82, 646–656.
- Marsh, H.W. (1990b). A multidimensional, hierarchical self-concept: Theoretical and empirical justification. *Educational Psychology Review*, 2, 77–172.
- Marsh, H.W. (1990c). The structure of academic self-concept: The Marsh/Shavelson model. *Journal of Educational Psychology*, 82, 623–636.
- Marsh, H.W. (1990d). Two-parent, step-parent, and single-parent families: Changes in achievement, attitudes and behaviors during the last two years of high school. *Journal of Educational Psychology*, 82, 327–340.
- Marsh, H.W. (1990e). *The Self-Description Questionnaire – I: SDQ-I manual*. Sydney: University of Western Sydney.
- Marsh, H.W. (1991a). Employment during high school: Character building or a subversion of academic goals. *Sociology of Education*, 64, 172–189.
- Marsh, H.W. (1991b). The failure of high ability high schools to deliver academic benefits: The importance of academic self-concept and educational aspirations. *American Educational Research Journal*, 28, 445–480.
- Marsh, H.W. (1991c). Public, Catholic single-sex, and Catholic coeducational high schools: Their effects on achievement, affect and behaviors. *American Journal of Education*, 320–356.
- Marsh, H. W. (1992a). The content specificity of relations between academic achievement and academic self-concept. *Journal of Educational Psychology*, 84, 43–50.
- Marsh, H.W. (1992b). Extracurricular activities: A beneficial extension of the traditional curriculum or a subversion of academic goals. *Journal of Educational Psychology*, 84, 553–562.
- Marsh, H.W. (1992c). *Self-Description Questionnaire II: Manual*. Publication Unit, Faculty of Education, University of Western Sydney, Macarthur.
- Marsh, H.W. (1992d). *The Self-Description Questionnaire – III: SDQ-III manual*. Sydney: University of Western Sydney.
- Marsh, H.W. (2007). *Self-concept theory, measurement and research into practice: The role of self-concept in educational psychology*. Leicester, UK: British Psychological Society.
- Marsh, H.W., Byrne, B.M. & Shavelson, R. (1988). A multifaceted academic self-concept: Its hierarchical structure and its relation to academic achievement. *Journal of Educational Psychology*, 80, 366–380.
- Marsh, H.W., Chessor, D., Craven, R.G. & Roche, L. (1995). The effects of gifted and talented programs on academic self-concept: The big fish strikes again. *American Educational Research Journal*, 32, 285–319.
- Marsh, H.W. & Craven, R.G. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science*, 1(2), 133–163.
- Marsh, H.W. & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. Phye (Ed.), *Handbook of classroom assessment: Learning, achievement, and adjustment* (pp.131–198). Orlando, FL: Academic Press.
- Marsh, H.W., Craven, R.G. & Debus, R.L. (2000). Separation of competency and affect components of multiple dimensions of academic self-concept: A developmental perspective. *Merrill Palmer Quarterly*, 45, 567–601.
- Marsh, H.W., Craven, R.G. & Martin, A. (2006). What is the nature of self-esteem: Unidimensional and multidimensional perspectives. In M. Kernis (Ed.), *Self-esteem: Issues and Answers* (pp.16–24). Psychology Press.

- Marsh, H.W. & Hattie, J. (1996). Future directions in self-concept research. In B.A. Bracken (Ed.), *Handbook of self-concept: Developmental, social, and clinical considerations* (pp.421–462). Oxford, England: John Wiley and Sons.
- Marsh, H.W. & Hau, K-T. (2003). *Relations between academic self-concept and achievement in mathematics and language: cross-cultural generalisability*. Self-concept Enhancement and Learning Facilitation Research Centre University of Western Sydney, Australia paper presented at NZARE AARE, Auckland.
- Marsh, H.W., Hau, K-T. & Kong, C-K., (2002). Multi-level modeling of longitudinal growth and change: Substantive effects or regression toward the mean artifacts? *Multivariate Behavioral Research*, 37, 245–282.
- Marsh, H.W. & Kleitman, S. (2002). Extracurricular school activities: The good, the bad, and the non-linear. *Harvard Educational Review*, 72, 464–502.
- Marsh, H.W. & Köller, O. (2003). Bringing together two theoretical models of relations between academic self-concept and achievement. In H.W. Marsh, R.G. Craven & D.M. McInerney (Eds.), *International advances in self research* (Vol. 1, pp.17–48). Greenwich, CT: Information Age.
- Marsh, H.W., Koeller, O. & Baumert, J. (2001). Reunification of East and West German school systems: Longitudinal multilevel modeling study of the big fish little pond effect on academic self-concept. *American Educational Research Journal*, 38(2), 321–350.
- Marsh, H.W. & O'Mara, A. (2008). Reciprocal effects between academic self-concept, self-esteem, achievement and attainment over seven adolescent years: Unidimensional and multidimensional perspectives of self-concept. *Personality and Social Psychology Bulletin*, 34, 542–552.
- Marsh, H.W., Parada, P.H. & Ayotte, V. (2004). A multidimensional perspective of relations between self-concept (Self Description Questionnaire II) and adolescent mental health (Youth Self-Report). *Psychological Assessment*, 16(1), 27–41.
- Marsh, H.W., Parada, R.H., Craven, R.G. & Finger, L. (2004). In the looking glass: A reciprocal effects model elucidating the complex nature of bullying, psychological determinants and the central role of self. In C.S. Sanders & G.D. Phye (Eds.), *Bullying, implications for the classroom: What does the research say?* (pp.63–107). Orlando, FL: Academic Press.
- Marsh, H.W., Parada, R.H., Yeung, A.S. & Healey, J. (2001). Aggressive school trouble-makers and victims: A longitudinal model examining the pivotal role of self-concept. *Journal of Educational Psychology*, 93(2), 411–419.
- Marsh, H.W. & Peart, N.D. (1988). Competitive and co-operative physical fitness training programs for girls: Effects on physical fitness and multidimensional self-concepts. *Journal of Sport and Exercise Psychology*, 10(4), 390–407.
- Marsh, H.W., Seaton, M., Trautwein, U., Lüdtke, O., Hau, K.T., O'Mara, A. & Craven, R.G. (in press). The Big Fish-Little Pond effect stands up to crucial scrutiny: Implications for theory, methodology, and future research. *Educational Psychology Review*.
- Marsh, H.W. & Shavelson, R.J. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist*, 20, 107–125.
- Marsh, H.W., Tracey, D. & Craven, R.G. (2006). Multidimensional self-concept structure for pre-adolescents with mild intellectual disabilities: A hybrid multigroup-MIMIC approach to factorial invariance and latent mean differences. *Educational and Psychological Measurement*, 66, 705–818.
- Marsh, H.W., Trautwein, U., Lüdtke, O., Köller, O. & Baumert, J. (2005). Academic self-concept, interest, grades and standardised test scores: Reciprocal effects models of causal ordering. *Child Development*, 76, 297–416.
- Marsh, H.W. & Yeung, A.S. (1997a). The causal effects of academic self-concept on academic achievement: Structural equation models of longitudinal data. *Journal of Educational Psychology*, 89, 41–54.
- Marsh, H.W. & Yeung, A.S. (1997b). Coursework selection: The effects of academic self-concept and achievement. *American Educational Research Journal*, 34, 691–720.
- Meece, J.L., Parsons, J.E., Kaczala, C.M. & Goff, S.B. (1982). Sex differences in math achievement: Toward a model of academic choice. *Psychological Bulletin*, 91(2), 324–348.
- Meece, J.L., Wigfield, A. & Eccles, J.S. (1990). Predictors of math anxiety and its influences on young adolescents' course enrollment intentions and performance in mathematics. *Journal of Educational Psychology*, 82(1), 60–70.
- Messick, S. (1989). Validity. In R.L. Linn (Ed.) *Educational measurement* (3rd ed., pp.13–104). New York: Macmillan.
- Ministerial Council on Education, Employment, Training and Youth Affairs (1998). *Revised national goals for schooling*. Quoted in Australian Curriculum Studies Association newsletter.
- Olweus, D. (1997). Bully/victim problems in school: Facts and intervention. *European Journal of Psychology of Education*, 12(4), 495–510.
- O'Mara, A.J., Marsh H.W., Craven, R.G. & Debus, R. (2006). Do self-concept interventions make a difference? A synergistic blend of construct validation and meta-analysis. *Educational Psychologist*, 41, 181–206.
- Parada, R. (2002). *Beyond bullying secondary schools program: Consultant's handbook*. Sydney, Australia:

- Self-Concept Enhancement and Learning Facilitation (SELF) Research Centre, University of Western Sydney.
- Patterson, G.R., DeBaryshe, B.D. & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist*, 44(2), 329–335.
- Pellegrini, A.D. (2004). *Observing children in their natural worlds: A methodological primer* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Rigby, K. (1996). *Bullying in Australian schools and what to do about it*. Melbourne: ACER.
- Rigby, K. & Slee, P. (1993). Dimensions of interpersonal relating among Australian children and implications for psychological wellbeing. *The Journal of Social Psychology*, 133(1), 33–42.
- Seaton, M., Craven, R.G. & Marsh, H.W. (in press). East meets West: Investigating the generalisability of the Big Fish–Little Pond effect in Western and non-Western cultures. In H.W. Marsh, R.G. Craven & D. McInerney (Eds.), *International Advances in Self Research, Volume 3*.
- Seligman, M.E.P. & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Shavelson, R.J., Hubner, J.J. & Stanton, G.C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, 46, 407–441.
- Skaalvick, E.M. & Rankin, R.J. (1995). A test of the internal/external frame of reference model at different levels of math and verbal self-perception. *American Educational Research Journal*, 35, 161–184.
- Sommer, K.L. & Baumeister, R.F. (2002). Self-evaluation, persistence, and performance following implicit rejection: The role of trait self-esteem. *Personality and Social Psychology Bulletin*, 28, 926–938.
- Sullivan, K. (2000). *The anti-bullying handbook*. Auckland, New Zealand: Oxford University Press.
- Swann Jnr., W.B., Chang-Schneider, C. & Larsen McClarty, K. (2007). Do people's self-views matter? Self-concept and self-esteem in everyday life. *American Psychologist*, 62, 84–94.
- Tracey, D.K., Marsh, H.W. & Craven, R.G. (2003). Self-concepts of preadolescent students with mild intellectual disabilities: Issues of measurement and educational placement. In H.W. Marsh, R.G. Craven & D.M. McInerney (Eds.), *International Advances in Self Research* (Vol. 1, pp.203–230). Greenwich, CT: Information Age.
- Trautwein, U., Lüdtke, O., Marsh, H.W., Köller, O. & Baumert, J. (2006). Tracking, grading, and student motivation: Using group composition and status to predict self-concept and interest in ninth-grade mathematics. *Journal of Educational Psychology*, 98(4), 788–806.
- Valentine, J.C. & DuBois, D.L. (2005). Effects of self-beliefs on academic achievement and vice-versa: Separating the chicken from the egg. In H.W. Marsh, R.G. Craven & D.M. McInerney (Eds.), *International Advances in Self Research*, Vol. 2 (pp.53–78).
- Valentine, J.C., DuBois, D.L. & Cooper, H. (2004). The relations between self-beliefs and academic achievement: A systematic review. *Educational Psychologist*, 39, 111–133.
- Vallerand, R.J., Blanchard, C., Mageau, G.A., Koestner, R., Ratelle, C. & Leonard, M. (2003). Les passions de l'ame: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767.
- Vispoel, W.P. (1995). Self-concept in artistic domains: An extension of the Shavelson, Hubner, and Stanton (1976) model. *Journal of Educational Psychology*, 87(1), 134–153.
- Watson, D., Clark, L.A., and Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Wells, L.E., and Marwell, G. (1976). *Self-esteem: Its conceptualization and measurement*. Beverly Hills, CA: Sage Publications.
- Wylie, R.C. (1989). *Measures of self-concept*. Lincoln: University of Nebraska Press.
- Wylie, R.C. (1979). *The self-concept*. (Vol. 2) Lincoln: University of Nebraska Press.