

## The Interactions of Self-concept, Behaviour and Gender for Year One Children

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### ABSTRACT

This study investigated the interactions between self-concept, behaviour, and gender for young children in recognition that these relationships are still poorly understood within the early childhood and self-concept research frameworks. The research questions investigated were: (1) What are the inter-relationships between self-concept and behaviour for Year one children? (2) Are there any gender differences in these domains for Year 1 children? The participants were 21 Year (Grade) one children and their teachers, located in a Tasmanian regional town. After ethical approval was obtained, the children were first, individually administered the *Self-Description Questionnaire for Preschoolers* (Marsh et al., 2002) by an experienced administrator to ascertain the children's self-concept profile. Second, the regular classroom teachers completed the *Strengths and Difficulties Questionnaire* (Goodman, 1997) on each child, to rate the children's multidimensional in-class behaviour. Along with this the children's in-class behaviour was systematically monitored by an observer over a two week period to validate the teachers' ratings of the children's behaviour. This research identified a low correlation between Year 1 children's self-concept and their teachers' rating of their behaviour ( $r = .03$ ), with the children with higher self-concepts being more outgoing. Girls were rated by their teachers as having more peer and social problems than the boys with the boys reporting higher physical ability self-concept. Because these results are different from that typically demonstrated with older children the results are discussed from a developmental and a socialisation perspective. The results suggest a change in traditional gender socialisation given the similarity of the boys and girls on these two instruments. One implications of this research is that teachers need to accommodate greater gender role diversity within their school program.

### INTRODUCTION

The claim is that many of the in-class actions and behaviours of children are influenced and even motivated by the children's emotions and their affective states (Bandura & Locke, 2003; Hay & Ashman, 2003; Thomas, Bierman, Thompson, & Powers, 2008). One of the most powerful influences on children's learning is thought to be the way children engaged with the learning task (Hattie, 2009). The argument is that in order for children to learn they need to be motivated and motivation is associated with a higher self-concept (Meece, Anderman, & Anderman, 2006; Patrick, Skinner, & Connell, 1993). For example, Patrick et al. (1993) identified that the most actively engaged students in the classroom were those who were confident in their ability and believed they were capable of achieving. Meece et al. (2006) also identified that middle and secondary school students were most positively motivated in classrooms when their teachers emphasised teaching for understanding and improving the students' skills and knowledge.

#### *Self-concept*

It is now generally accepted that self-concept is a multidimensional construct (Hay & Ashman, in press; Hattie, 2009) with Marsh and O'Mara (2009) suggesting that it has three main developing components: the cognitive self; the social self; and the physical self. From this perspective, from

childhood through to late adolescence an individual's cognitive component is influenced by factors such as school and academic performance; the social component is influenced by relationships and popularity with peers and friends; and the person's physical component is affected by factors such as appearance, physical, and athletic prowess. Self-concept is thought to influence achievement through students' motivation and self-regulatory processes (Marsh, Trautwein, Ludtke, Köller, & Baumert, 2005). Furthermore, individuals with low self-concept have been shown to have less positive characteristics in the domains of cooperation, persistence, leadership, anxiety, expectations for future education, and peer interactions when compared to their peers with high self-concept (Hay, Ashman, & van Kraayenoord, 1998a).

Low self-concepts, low educational aspirations, external locus of control, and negative attitudes toward school are considered to be interrelated (Hay, Byrne, & Butler, 2000; Marsh et al., 2005) such that students with positive academic self-concept demonstrate a reduction in test anxiety, better long-term educational attainments, and higher levels of school retention (Marsh & O'Mara, 2009). The argument is that children's level of self-concept influences their choices and behaviour in the classroom (Bandura & Locke, 2003). For example, Carroll, Houghton, Durkin, and Hattie (2009) reported that some underperforming adolescents maintained their reputation with their peers and their higher self-concept by not engaging in school activities.

### *Gender Differences*

A recent trend in the investigation of gender (sex) difference and self-concept has been the generation of large scale meta-analyses research studies. Using this approach, Cole et al. (2001) reported that boys achieved higher scores than girls in the domains of physical appearance and sports, slightly higher scores for academic and social domains, but similar scores to girls for behaviour conduct self-concept. In meta-analyses of the gender and self-concept dimensions, Gentile, Crabe, Dolan-Pascoe, Wells, and Maitino (2009) focused more on adult studies than Cole et al. In the Gentile et al. study they found that males scored highly in the self-concept domains of physical appearance, athletic, personal self and self-satisfaction, while women had higher scores than men in domains associated with behavioural conducted and moral-ethical dimensions. While such meta-analyses are helpful and bring together a wide range of gender and self-concept test results that have been generated over time, the limitation is the tabulation of data from a range of self-concept instruments (Hay & Ashman, in press) and some of which have been criticized for their design and theoretical rigor as well as their psychometric and developmental quality (see Byrne, 1996, for review).

Much of the contemporary school self-concept research has concentrated on the differences between males' and females' academic achievement and their self-concept scores (Byrne, 1996; Hay, 2000; Hay, Ashman, & van Kraayenoord, 1998b). For example, Hay et al., reported that

preadolescent girls had high academic abilities in reading, spelling, and mathematics but they only achieved high reading self-concept scores. The indications are that gender difference in reading self-concept and achievement is also influenced by gender differences in students' goal orientation with Hyde and Durik (2005) maintaining that in the domain of reading and English, girls used a mastery goal orientation, wanting to comprehend the detail, while boys were more outcome and performance orientated, wanting to finish the reading and the activity.

Traditionally, researchers have suggested that boys and girls are socialised to behave differently (Fossum, Morch, Handegard, & Drugli, 2007). For example, Carroll et al. (2009) noted that in high school male and female students' self-concept influenced their behaviour in different ways, with the peer group having more of an influence on boys out of school behaviour than it did for girls. Although these traditional gender differences between self-concept and behaviour are widely accepted, other studies are starting to challenge the traditional views of girls' and boys' behaviour and have suggested that the way boys and girls are socialised is also changed (Denham, Bassett, & Wyatt, 2010).

#### *Research instruments and questions*

Reviews of children's self-concept assessment instruments have looked at the need to develop more effective self-concept measures for young children (Marsh, Craven, & Debus, 1991). As a result, they have identified that young children are more able to differentiate among multiple dimensions of self-concept better than previously assumed (Marsh et al., 1991; Marsh et al., 2002). This research thus casts doubt over previous self-concept notions that self-concept could not be adequately measured before the age of eight years because of the children's reading levels and their poor ability to cognitively self-reflect on their behaviour (Byrne, 1996). In response to the perceived need for self-concept assessment measures for young children, Marsh et al. (2002) adapted his *Self-Description Questionnaire* (1989) and developed an individual preschool version that involved less language and no reading of items by the child.

While there are a number of behavioural rating scales available there is debate and concern about which is the most effective, which dimensions should be investigated within these instruments and which is suitability for classroom settings with young children (Randolph et al., 2000; Rowe & Rowe, 1997). In response to these concerns Goodman (1997) developed the *Strengths and*

#### *Difficulties Questionnaire.*

Given the development of better assessment instruments and procedures associated with measuring young children's self-concept and their in-class behaviour, along with the need for a greater understanding of this relationship from a developmental perspective, two research questions are being investigated.

- (1) What kind of relationship exists between Year one children's self-concept and their in-class behaviour?
- (2) Are there any gender differences in the interrelationship between Year one children's in-class behaviour and their level of self-concept?

## **METHOD**

The aim of this study was to determine the inter-relationship between Year one children's self-concept and their in-class behaviour, as well as identify any gender differences in Year one children's self-concept and in-class behaviour.

### *Participants*

Three teachers and 21 Year one children (10 male, 11 female, approximately 6.5 years old) from a public primary school in the Hobart area (Tasmania) participated in this study. All of the 21 Year one students were from the same class and the three teachers worked with the children on a regular basis.

### *Instruments*

The *Strengths and Difficulties Questionnaire* (Goodman, 1997) is a brief (ten minute) behavioural screening questionnaire that rates 25 attributes of children's behaviour. The items are divided between five scales: emotional symptoms; conduct problems; hyperactivity/ inattention; peer relationship problems; and pro-social behaviour. It is designed to be completed by teachers on students aged four to sixteen year old. According to the instrument's manual a score of ten is referred to as displaying a high level of positive behaviour and a score over 15 is referred to as abnormal behaviour problems.

The *Self-Description Questionnaire for Preschoolers* (Marsh et al., 2002) is a 38 item questionnaire designed to measure multiple domains of self-concept in young children. It measures six self-concept factors, two in academic self-concept (verbal and maths) and four in the non-academic self-concept domains (physical, appearance, peers, and parents). The questionnaire is individually administered and takes about 20 minutes to be completed.

### *Procedure*

The University of Tasmania's Human Research Ethics Committee and the Tasmanian Department of Education approved the research to be conducted. Participating teachers completed the *Strengths and Difficulties Questionnaire* for each child in the Year one class. The researcher (Emma Walker) independently observed the behaviour of the children in the class over a two week period and reported an inter-observer reliability of 0.7 to that of the teachers. The *Self-Description Questionnaire for Preschoolers* was individually administered to each child by an experienced administrator of the questionnaire.

## RESULTS

### *Behaviour and self-concept*

The overall correlation between teachers' behaviour ratings of the children and the children's self-concept demonstrated a low correlation between these two ratings ( $r = 0.3$ ) such that for this cohort of children the more outgoing the children, the higher their self-concept. None of the children were identified by their teachers to be excessively high or low on the behaviour rating scale, suggesting they were in the "average" range. Similarly, their self-concept scores also tended to be in the upper section of the rating scale, which is a very typical response on this measure (Marsh et al., 2002).

This correlation is plotted using cluster points in Figure 1.

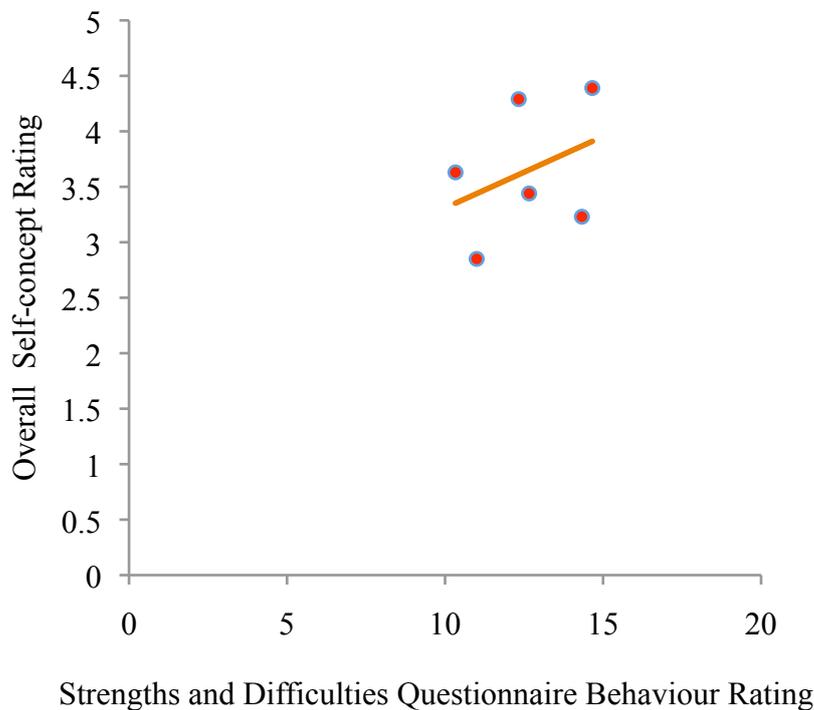


Figure 1. Correlation between children's overall self-concept rating and their Strengths and Difficulties Behaviour rating,  $r = 0.3$  with line of best fit (R Sq)

### *Gender*

A statistical analysis (MANOVA) was conducted to investigate the level of gender differences associated with the children's scores for the *Self-Description Questionnaire for Preschoolers* and the *Strengths and Difficulties Questionnaire*. Few significant gender differences were identified. The main significant difference was the girls were rated by their teachers as having more peer social problems than boys and the boys rated themselves higher for physical ability self-concept. The significant results are reported in Table 1.

Table 1 *Significant gender difference*

subscales	Girls <i>n</i> = 10		Boys <i>n</i> = 11		<i>F</i> ( <i>df</i> = 1,19)	<i>Sig</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Peer social behaviour	1.70	1.95	0.36	0.67	4.59	0.03*
Physical Ability self-concept	3.71	0.83	4.29	0.45	4.19	0.04*

Significant  $p < .05$

## DISCUSSION

The results of this research identified that there was low correlation relationship between Year one children’s self-concept and their in-class behaviour, when analysed as a whole class group. This finding is somewhat different to a range of studies that have reported significant relationships between high school and upper primary school students’ self-concept and behaviour, when measured as a whole group (i.e., Fossum et al., 2007; Hay, 2000; Sebastian, Burnett, & Blakemore, 2008). This suggests that the age of the participants and their educational setting is a factor when investigating this relationship. It also indicates that there is a developmental and even a “social learning” element associated with this relationship.

With reference to the two research instruments some gender differences were identified, with girls reporting more social peer problems and the boys rated themselves higher for physical ability self-concept. Gender differences in terms of self-concept are well noted in the self-concept and behaviour research literature and this difference is often associated with theories of socialisation and gender roles (Byrne, 1996; Carroll et al., 2009; Crain, 1996). What is interesting from a gender socialisation perspective is that this group of Year one children had fewer gender differences for their self-concepts and behaviour, suggesting that they have yet to be influenced by traditional gender role expectations.

The gender differences that were identified could be related to the evidence that young girls demonstrate higher levels of verbal skills than their male peers, who are more verbally passive in the classroom (Paul, 2007). Following this line of argument, Garaigordobil, Dura, and Perez (2005) noted that girls with better verbal skills were also more dominant with their peers, which suggests why the Year one girls in this study displayed a higher level of peer problems than boys.

### *Socialisation*

The finding that there were generally few gender differences in terms of behaviour and self-concept with Year one children is a relevant finding. According to Fossum et al. (2007) behavioural characteristics and self-perceptions about one’s self are learnt through gender socialisation from

parents, the community and the wider society with boys and girls socialised over time to behave differently. The indications from the present study is supportive of this developmental perspective and suggest that girls learn to be more passive and quite in class as their experiences with formal schooling increases, but they start school as confident and as outgoing as their male peers. This perspective is also supported by recent research that indicates that the way girls and boys are socialised by their parents, communities, schools and the wider society is changing (Denham et al., 2010; Macnaughton, 2005). Denham et al. (2010) reported that for both boys and girls their mothers were more associated with emotional support and while fathers still provided this, they were also encouraging independence for the children. This suggests that children are now more socialised by their parents in similar ways irrespective of their gender. If this is the case it could help explain why in this study the Year one girls and boys behaved in similar ways.

Contemporary Australian work patterns are associated with both parents now working and their children being socialised more in child care facilities (Chick et al., 2002). Chick et al., advocated that this is having an influence on children's gender roles because all children are now given the opportunity to interact with activities that were once associated with one gender or the other, for example, girls doing cooking and boys building. This again may help to explain the general lack of gender difference in the Year one data.

The notion that young children's self-concept is influenced by socialisation and is in part a learnt response has been explored by Nuthall (2005). According to Nuthall the classroom is structured by routines and ritualised activities and over time children learn these routines and their expected behaviours in the classroom. For example, if children are expected to work quietly at their desk, they may sit quietly and mimic the desired behaviour, but not necessarily engage in the work. This point is also made by Sanchez and Roda (2003) who considered Year one as the period in which there is an awareness by children of the expectations for behavioural compliance, and their need to "look like they fit in" and this awareness is heightened as the children progress through the schooling years.

### *Self-concept and behaviour*

This research has identified that young children's behaviour and their self-concept were poorly correlated and this finding is different to the findings from studies conducted with older students (i.e., Carrol et al. 2009; Hyde & Durik, 2005; Thomas et al., 2008). This proposes a developmental difference and this difference could be related to a lack of cognitive development in the Year one children. In particular, Lightfoot, Cole and Cole (2009) have suggested that children's ability to self-reflect is still developing in children aged 6 years. Certainly, Hay, Ashman, and van Kraayenoord (1997) have demonstrated that by the time children are in Year 5, children are able to self-reflect

and are able to form judgements about their performance and attributes in relationship to their frame-of-reference and peer comparison group.

An alternative possibility in explaining the findings is that the sample of Year one students in this study all achieved teacher behaviour ratings that were in the “normal” range (Strengths and Difficulties Behaviour ratings of 10 to 15) as were the children’s self-concept scores. For this cohort of students the correlations between their self-concept and behaviour scores may just be low. In contrast, it is the cohort of students with very low and very high self-concepts or with more “abnormal” behaviours that demonstrate stronger correlations between their self-concept and their behaviour.

#### *Limitations and future directions*

There were a number of limitations that may have influenced the results of this research project. It is a small scale study which could influence the reliability and transferability of the results. Another limitation the participants were from one Year one class, from one school, which could also influence the transferability of these results.

For future research it is recommended that this study is replicated on a larger sample size and in a longitudinal way to determine at what development age does the relationship between children’s self-concept and their behaviour change and is this change different for boys and girls.

## **CONCLUSION**

In relation to Year one children’s self-concept and their behaviour the findings support the notion that there is a developmental aspect to this relationship as well as a socialisation component.

Although this study is small scale it has used relevant instruments and procedures to explore the relationship for a cohort of the student population that has been traditionally under researched. The findings in this study have relevance to practice. In particular, if children are coming into the schooling system with fewer traditional gender biases teachers need to be encouraging this development with teachers needing to concentrate on children achieving to their potential and not being constrained or inhibited by traditional gender role prejudices.

## **REFERENCES**

- Bandura, A., Caprara, G., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G., & Barbaranelli, C. (2008). Longitudinal analysis of the role of perceived self-efficacy for self regulated learning in academic continuance and achievement. *Journal of Educational Psychology, 100* (3), 525-534.
- Bandura, A., & Locke, E. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88* (1), 87-99.

- Byrne, B. M. (1996). *Measuring self-concept across the life span: Issues and instrumentation. Measurement and instrumentation in psychology*. Washington, DC: American Psychological Association.
- Carroll, A., Houghton, S., Durkin, K., & Hattie, J. (2009). *Adolescent reputations and risk: Developmental trajectories to delinquency*. New York: Springer.
- Chick, K., Heilman-Houser, R., & Hunter, M. (2002). The impact of child care on gender role development and gender stereotypes. *Early Childhood Education Journal, 29* (3), 149-154.
- Cole, D. A., Maxwell, S. E., Martin, J. M., Peeke, L. G., Seroczynski, A. D., Tram, J. M., Hoffman, K. B., Ruiz, M. D., Jacquez, F., & Maschant, T. (2001). The development of multiple domains of child and adolescent self-concept: A cohort sequential longitudinal design. *Child Development, 72*, 1723-1746.
- Crain, R. M. (1996). The influence of age, race, and gender on child and adolescent multidimensional self-concept. In B.A. Bracken (Ed.), *Handbook of self-concept: Developmental, social and clinical considerations* (pp. 395-420). New York: Wiley.
- Denham, S., Bassett, H., & Wyatt, T. (2010). Gender differences in the socialization of preschoolers' emotional competence. *New Directions for Child and Adolescent Development, 128* (8), 29-49.
- Fossum, S., Morch, W., Handegard, B., & Drugli, M. (2007). Childhood disruptive behaviors and family functioning in clinically referred children: Are girls different from boys? *Scandinavian Journal of Psychology, 48* (5), 375-382.
- Hay, I. (2000). Gender self-concept profiles of students suspended from high school. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*, 345, 352.
- Hay, I., & Ashman, A.F. (in press). Self-concept. In R. J.R. Levesque (Ed.), *Encyclopedia of adolescence*. New York: Springer Publication.
- Hay, I., Ashman, A., & van Kraayenoord, C. (1998a). The educational characteristics of students with high or low self-concept. *Psychology in the Schools, 35*, 391-400.
- Hay, I., Ashman, A., & van Kraayenoord, C. (1998b). The influence of gender, academic achievement and non-school factors upon pre-adolescent self-concept. *Educational Psychology, 18*, 461-470.
- Hay, I., Ashman, A., & van Kraayenoord, C. (1997). Investigating the influence of achievement on self-concept using an intra-class design and a comparison of the PASS and the SDQ-1 self-concept tests. *British Journal of Educational Psychology, 67*, 311-321.
- Hay, I., Byrne, M., & Butler, C. (2000). Evaluation of a reflective thinking, problem solving program to enhance adolescents' self-concept. *British Journal of Guidance and Counselling, 28*, 101-113.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London and New York: Routledge.
- Hyde J.S., & Durik, A. M. (2005). Gender, competence, and motivation. In A. J. Elliot & C.S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 375-391). New York: Guilford Press.
- Macnaughton, G. (2005). *Rethinking gender in early childhood education*. St Leonards, NSW: Allen and Unwin.
- Marsh, H.W. (1989). *Self-Description Questionnaire-I: Manual*. San Antonio, TX: Psychological Corporation.
- Marsh, H., Ellis, L., & Craven, R. (2002). How do preschool children feel about themselves? Unraveling measurement and multidimensional self-concept structure. *Developmental Psychology, 38* (3), 376-393.

- Marsh, H. W., & O'Mara, A. (2009). 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., Trautwein, U., Ludtke, O., Köller, O., & Baumert, J. (2005). Academic self-concept, interest, grades, and standardized test scores: Reciprocal effects models of causal ordering. *Child Development*, *76*, 397-416.
- Nuthall, G. (2005). The cultural myths and realities of classroom teaching and learning: A personal journey. *Teachers College Record*, *107* (5), 895-934.
- Patrick, B., Skinner, E., & Connell, J. (1993). What motivates children's behaviour and emotion? Joint effects of perceived control and autonomy in the academic domain. *Journal of Personality and Social Psychology*, *65* (4), 781-791.
- Paul, R. (2007). *Language disorders: From infancy through adolescence*, 3rd ed. St. Louis, MI: Mosby.
- Randolph, S. M., Koblinsky, S.A., Beemer, M. A., Roberts, D. D., & Letiecq, B. L. (2000). Problem behaviors of African American boys and girls attending Head Start programs in violent neighborhoods. *Early Education and Development*, *11*, 339-356.
- Rowe, K. S, & Rowe K. J (1997a). Norms for parental ratings on Conners' abbreviated parent-teacher questionnaire: Implications for the design of behavioral rating inventories and analyses of data derived from them. *Journal of Abnormal Child Psychology*, *25*, 425-427.
- Sanchez, F., & Roda, M. (2003). Relationships between self-concept and academic achievement in primary students. *Journal of Research in Educational Psychology and Psychopedagogy*, *1* (1), 95-120.
- Sebastian, C., Burnett, S., & Blakemore, S. J. (2008). Development of the self-concept during adolescence. [\*Trends in Cognitive Sciences\*](#), *12*, 441-446.
- Thomas, D., Bierman, K., Thompson, C., & Powers, C. (2008). Double jeopardy: Child and school characteristics that predict aggressive-disruptive behaviour in first grade. *School Psychology Review*, *37* (4), 516-532.