



Career barriers and reading ability as correlates of career aspirations and expectations of parents and their children

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Abstract

Data were obtained from 176 Year 7 children (mean age = 12.2 years) on career status aspirations and expectations, career barriers, academic engagement, academic control beliefs, general ability and literacy; and from parents, mainly mothers, on aspirations, expectations and career barriers. Discrepancy scores between aspirations and expectations were calculated for both children and parents. Children differed from parents on career status aspirations and expectations; boys did not differ from girls, and parents did not differentiate between boys and girls. Parents' and children's aspirations were both associated with reading ability, although the association was weak for the children. Children's expectations were associated with perceptions of career barriers, and a trend towards reading abilities, while parents' expectations were associated with general ability and reading.

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1. Introduction

In recent years, a growing body of empirical evidence has attested to the relevance of career exploration, awareness, aspirations/expectations and interests during childhood (Hartung, Porfeli, & Vondracek, 2005; Watson & McMahon, 2005). The present study

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examined the associations between career barriers (including general and specific abilities), school engagement and academic control beliefs, and career status aspirations and expectations among children who were in late childhood to early adolescence. Many career development theorists have recognised the importance of childhood and early adolescent experiences in the formation of career goals, aspirations, and expectations. Of particular relevance to the current study is [Gottfredson's \(1996\)](#) third stage of career development (9–13 years), during which children aspire to occupations based on social value and social status. This stage comes before the fourth period (14 years and onwards) when children are expected to aspire to occupations based on interests, abilities and needs.

Studies have shown consistently that adolescents perceive a substantial number of barriers to career development, including ethnic and gender discrimination, lack of finances, family attitudes, lack of ability, lack of skills, and lack of educational opportunities ([Luzzo, 1993, 1995](#); [McWhirter, 1997](#); [Swanson, Daniels, & Tokar, 1996](#); [Swanson & Tokar, 1991a, 1991b](#)). This evidence suggests that perceptions of career barriers both compromise career aspirations in adolescents and impair their capacity to make optimum career-related decisions ([Albert & Luzzo, 1999](#); [Lent, Brown, & Hackett, 2000](#)). The relationship between barriers and adaptive career functioning is a complex one, for while career barriers might restrict career options for some, they can also operate to motivate others to achieve more highly ([Lent et al., 2000](#)).

There have been fewer studies specifically focusing on the types of barriers that children perceive might influence their future career choices. The potential number of barriers in childhood, perceived or real, is also likely to be substantial ([Hartung et al., 2005](#)). For example, children's socio-economic status (SES), has been associated with the aspirations they hold ([Cook et al., 1996](#)). Children with lower SES have less knowledge about the world of work ([Nelson, 1963](#)), perceive fewer occupational choices for themselves ([Weinger, 1998](#)), and tend to aspire to occupations consistent with their SES level ([Miller, 1989](#)). Consequently, these children have a circumscribed range of aspirations compared to children from families with a higher SES.

Occupational aspirations and gender have been widely studied in adolescents. Girls tend to aspire to a narrower range of occupations than boys because they believe many jobs are unsuitable for girls, whereas boys have a greater occupational understanding ([McMahon & Patton, 1997](#)) and focus ([Curry, Trew, Turner, & Hunter, 1994](#)) and see more occupational opportunities than girls ([Reid & Stephens, 1985](#)). These findings suggest that girls may have more restricted career aspirations, expectations and goals than do boys.

Parental influences have been widely implicated in children's career knowledge and aspirations. Children typically have more understanding of their parents' occupations, when compared to other possible occupations ([Seligman, Weinstock, & Heflin, 1991](#)). In addition to children's knowledge of their parents work, parents communicate their work aspirations for their children. [Seligman et al. \(1991\)](#) reported that children as young as 10 years can state the occupational aspirations that their parents have for them. Overall, children can gain a view of career options and work environments from their parents. As a result, parents influence children's career aspirations and children's perceptions of the suitability of careers ([Seligman, Weinstock, & Owings, 1988](#)).

Developmental career theories stress the importance of personal interests (what I like to do), competencies (what I am good at) and values (what I think is important) as building blocks for decision-making about careers ([Hackett & Betz, 1981](#)). Despite the importance of competencies to obtaining and maintaining employment in adolescence

(Creed, 1999), little research has examined the relationship between competencies, either general competencies such as ability or specific skills such as reading ability, and career aspirations. Existing research with children suggests that those with higher ability have more occupational knowledge and perceive more options than children with lower ability (Barclay, 1974; Nelson, 1963). Additionally, children who achieve well at school show a greater interest in professional and scientific careers than their lower achieving peers (Fox & Zimmerman, 1985; Gassin, Kelly, & Feldhausen, 1993), and generally have higher career aspirations (Danziger, 1983; Gassin et al., 1993). At the other end of the achievement spectrum, young people with reading difficulties are less likely to do well educationally and to have poorer vocational success as adults (Maughan, 1995; Stanovich, 1986). Also, young people with reading difficulties have been shown to have lower levels of career maturity (Hitchings & Retish, 2000), to limit their educational and occupational aspirations (Rojewski, 1996) or to have unrealistic career ambitions (Kortering & Braziel, 2000), and be more at risk of school drop-out (Blackorby & Wagner, 1997). Thus, it is likely that actual and perceived ability limitations will influence occupational aspirations in this age group.

Poor school engagement is associated with low achievement at school (Skinner, Zimmer-Gembeck, & Connell, 1998), and poor engagement and low achievement are associated with early school termination. These findings suggest that school engagement may have implications for career aspirations and later achievements. Students who become disengaged from school and do not complete secondary education are more likely to have negative occupational and life outcomes compared with their peers who remain in education and training. These include less stable employment, unemployment and poverty (Australian Bureau of Statistics, 1997; Creed, Muller, & Patton, 2003).

Consistent with Gottfredson's compromise and circumscription model, we expected that higher perceived career barriers would be associated with lower career status expectations and more career status discrepancies between aspirations and expectations. We did not expect career barriers to be related to career status aspirations, as children in Gottfredson's third period (9–13 years) were expected to aspire to occupations based on social status rather than based on realistic self-evaluations, which occur in the fourth period (14+ years). As children's career status aspirations and expectations are influenced by their parents' career status aspirations and expectations for them (Helwig, 1998), we expected parents' aspirations and expectations to correspond with those of their children. In Gottfredson's terminology, the parents are in their fourth period of career development in which they are able to make career decisions based on interests, abilities, needs and context. Accordingly, we expected parents to make judgements about their children's aspirations and expectations based on these more "mature" considerations and, while their aspirations and expectations might be reflected in their children's aspirations and expectations, we expected parents' evaluations to reflect more real career barriers rather than perceived barriers, as would be the case with the children.

2. Methods

2.1. Participants

Data were obtained from 189 children and 176 parents. The data reported here are from the 176 children whose parents responded, and from the 176 parents. Child participants

were Year 7 children from two State Government primary schools in Southeast Queensland, Australia (about 50% from each school). There were 86 boys (48.9%) and 90 girls (51.1%), with a mean age of 12.24 years ($SD = .43$; range = 11.42–13.53), which represented about 75% of all children in this final year of primary school. The two schools were suburban, located within 5 km of each other in a middle level socio-economic part of a medium-sized city. Adult participants were parents/guardians of the children, primarily mothers (87.6%). Five levels of socioeconomic status (SES) were calculated based on parental occupational status, with 9.7% of parents reporting unskilled jobs, 48.3% semi-skilled jobs, 29% skilled jobs, 12.5% semi-professional jobs, and 0.6% professional jobs.

2.2. Materials

2.2.1. Career status aspirations and expectations

Career status aspirations were assessed using the single question, “What kind of job would you *like* to have when you finish your education?”, with options of *an unskilled/semi-skilled/skilled/semi-professional/professional job*. Sample occupations were provided for each status level. For example, for the skilled category, the jobs of clerical worker, police officer, hairdresser and electrician were indicated as typical for this level. This allowed desired status levels to be coded 1–5, with higher scores indicating higher desired status.

Career status expectations were assessed using a similar single question, “What kind of job do you *really expect* to have when you finish your education?”, with the same options of *an unskilled/semi-skilled/skilled/semi-professional/professional job*. Expected status levels were coded 1–5, with higher scores indicating higher expected status. These questions were based on ones used in previous studies with adolescents (Davey & Stoppard, 1993; McNulty & Borgen, 1988).

2.2.2. Career status discrepancies

Children were classified as career status non-discrepant or discrepant based on whether or not they reported the same desired and expected career status (Armstrong & Crombie, 2000; Davey & Stoppard, 1993). A child was categorised as non-discrepant if he/she reported the same desired and expected career status levels, and categorised as discrepant if he/she reported different desired and expected career status levels. If the child reported lower status expectations relative to desired status then he/she was categorised as “lower expected status”; if the child reported higher status expectations relative to desired status then he/she was categorised as “higher expected status”. Thus, three categories of non-discrepant, higher expected status and lower expected status were created.

2.2.3. Career barriers

Children’s perceived career barriers were assessed using a barriers scale originally devised by Howell, Frese, and Sollie (1984). Children responded to the question, “How much do you think each of the following things will stop you from getting the job you would like in the future?”, on a 4-item response format with markers of *not at all/not very much/pretty much/a whole lot*, to 15 barriers (e.g., of not having enough money/family difficulties/a job shortage). The scale was modified to make it more suitable to Australian pupils (e.g., “technical school and college” was replaced with “university”). Higher scores indicated more perceived barriers. Howell et al. reported sound internal reliability for the

original scale and assessed validity by testing its relationship to social origins, status and career plans. The internal reliability for the present sample was high at 0.87.

2.2.4. *School engagement*

Children completed an abbreviated 14-item version of the Rochester Assessment of Intellectual and Social Engagement Scale (Furrer & Skinner, 2003), which measured two components of school engagement. The 7-item behavioural engagement subscale measured children's effort, attention and persistence at school (e.g., "When I run into a difficult question at school, I try even harder", and "The first time my teacher talks about a new topic, I listen very carefully"), while the 7-item emotional engagement subscale tapped children's emotional response to learning activities (e.g., "I feel good when I am in class", and "When we start something new in class, I feel interested"). Children responded on a 4-item format of *not at all true/not very true/sort of true/very true*. The original measure contained nine and fifteen items, respectively, but based on previous use with Australian children, the domains were shortened to the lengths reported above. Furrer and Skinner reported internal reliabilities of .75 for behavioural engagement and .86 for emotional engagement, when all items were included. These were .85 and .82, respectively, for the abbreviated versions in the current study. As there was a high correlation between behavioural and emotional engagement ($r = .60, p < .01$), and each domain had similar correlations with other measures included in this study, the two domains were summed to create a measure of total school engagement, where higher scores represented more engagement. The internal reliability for this was 0.84.

2.2.5. *Academic control beliefs*

Children completed an abbreviated 4-item form of the control beliefs subscale from the Students Perceptions of Control Questionnaire (Wellborn, Connell, & Skinner, 1989). The four items included the two items recommended for use in the short version and the best two loading items from the remaining four items of the full subscale. These latter two items were selected based on previous use. The subscale measures the extent to which children believe they can produce positive educational outcomes (e.g., "I can do well in school if I want to", and "If I decide to learn something hard, I can"). A 4-item response format, of *not at all true/not very true/sort of true/very true*, was used, with higher scores representing more control. The internal reliability was 0.66.

2.2.6. *General ability*

General ability was measured using the 20-min timed version of Raven's Standard Progressive Matrices (Raven, Court, & Raven, 1988). The test contains 60-items of analogous problem solving of increasing difficulty. It is considered largely culturally and academically free, and is regarded as a good measure of fluid intelligence and Spearman's *g* (Llabre, 1985). The test has been used extensively in clinical, educational and research settings. Development, reliability and validity data are provided by de Lemos (1989). Internal consistency scores derived from the split-half method range from 0.60 to 0.98, with a median of 0.90. Test-retest correlations range from 0.46 (11-year interval) to 0.97 (two-day interval). Concurrent validity coefficients between the Standard Progressive Matrices and other tests of ability (e.g., the Wechsler scales) typically range between 0.70 and 0.90. As all children were of approximately the same age, total raw scores were reported in this study, with higher scores representing higher ability.

2.2.7. Reading ability

Single word reading and single word spelling were assessed to determine children's reading ability. These were evaluated using the Wide Range Achievement Test (WRAT-3, Wilkinson, 1993). In the individually administered WRAT-3 reading component, there were 42 items of increasing difficulty, with administration ceasing following 10 consecutive errors. For the group administered WRAT-3 spelling, there were 40 words of increasing difficulty to be spelled by the children. The test is widely used and has good reported psychometric properties. Median internal reliability coefficients for the three subtests of the WRAT-3 range from 0.82 to 0.95. Concurrent validity coefficients between the WRAT-3 combined reading, spelling and arithmetic scores and the Wechsler scales range from 0.66 to 0.73. As all children were of approximately the same age, raw scores were used in the study, with higher scores representing better reading and spelling. As there was a high correlation between the reading and spelling subscales ($r = .66, p < .01$), and each subscale had similar correlations with other measures in the study, the two subscales were converted to z -scores and summed to create one measure of reading ability.

2.2.8. Parents' career status aspirations and expectations

Parents' aspirations and expectations of careers for their children were assessed using similar questions and response format to those used with the children (i.e., "What kind of job would you *like* your child to have...", and "What kind of job do you *really expect* your child to have..."). Parents' career status discrepancy scores were coded using the same criteria as used for categorising the children's career status discrepancies.

2.3. Procedure

The data for this study constitute the first wave of a prospective longitudinal study examining the relationship between children's achievement and their educational and life outcomes (see Conlon, Zimmer-Gembeck, Creed, & Tucker, 2006). Parents of Year 7 children were invited to participate in the study and to give permission for their children to participate. Children completed a survey and the group reading tests in their home classrooms. These were administered by the researchers in the presence of class teachers. Children were then assessed individually away from the classroom on additional reading and ability measures. Most parents responded to a short survey taken home by the children, although a small number ($N = 9$) completed the survey via a telephone interview.

3. Results

3.1. Children/parent comparisons on aspirations, expectations and discrepancies

Few children and parents reported career status aspirations in the unskilled (children = 0, parents = 1) or semi-skilled categories (children = 5, parents = 2), and few reported career status expectations in these lower categories (unskilled: children = 0, parents = 5; semi-skilled: children = 14, parents = 5). Consequently, children in these two categories were excluded from further analyses. Children reported significantly lower career status aspirations than their parents, $\chi^2(4) = 12.21, p = .016$. Children were more likely to select the skilled category than their parents (22% vs. 14%) and were less likely to select the semi-professional category (14% vs. 20%). There was little difference in preference for the professional cate-

Table 1
Correlations, means and standard deviations for all continuous variable; $N = 176$

Variables	1	2	3	4	5
1. Children's perceived career barriers	—				
2. School engagement	-.30**	—			
3. Academic control beliefs	-.35**	.58**	—		
4. General ability ^a	-.28**	.10	.21**	—	
5. Reading ability ^b	-.34**	.33**	.36**	.45**	—
<i>M (SD)</i>	27.6 (7.3)	43.1 (7.5)	13.9 (2.1)	40.1 (14.8)	0.0 (0.91)

^a General ability raw score was used. General ability, age standardised $M = 100.1$, $SD = 14.8$.

^b WRAT reading and WRAT spelling raw scores were converted to z-scores and summed. Hence, the M is about 0 and the SD is about 1. WRAT reading $M = 42.4$, $SD = 5.8$. WRAT reading, age standardised $M = 100.3$, $SD = 15.8$. WRAT spelling $M = 35.0$, $SD = 4.6$. WRAT spelling, age standardised $M = 102.9$, $SD = 13.2$.

** $p < .01$.

gory (61% vs. 64%). Children also differed significantly from their parents on career status expectations, $\chi^2(4) = 14.94$, $p = .005$. Children were less likely to select the semi-professional category (17% vs. 26%) and more likely to select the professional category (47% vs. 38%). There was little difference for preference for the skilled category (29% vs. 31%). Boys did not differ from girls on career status aspirations, $\chi^2(2) = 2.04$, $p = .36$, or career status expectations, $\chi^2(2) = 4.22$, $p = .12$, and parents held the same aspirations, $\chi^2(2) = 3.17$, $p = .21$, and expectations, $\chi^2(2) = 2.71$, $p = .26$, for their sons and daughters.

Most children (126; 79.2%) reported the same desired and expected job status, 30 (19%) reported lower job status expectations relative to their desired status, and 3 (2%) reported higher job status expectations than desired. As the majority of children demonstrated no discrepancy between the desired and expected job status, no further analyses were conducted with this outcome variable. Although the majority of parents (107; 64.5%) reported the same desired and expected job status for their child, just over one-third (58; 35%) reported lower job status expectations relative to their desired status, and one parent (0.6%) reported higher job status expectations than desired. Children's general ability was the only predictor variable significantly related to the parents' discrepancy score ($r = -.23$). Comparison of the general ability means for non-discrepant and lower expected status groups showed that parents of children within the non-discrepant group had higher general ability than the children of parents in the lower expected status group $t(173) = -2.69$, $p = .008$. See Table 1 for summary data.

3.2. Correlates of career status aspirations and expectations

For the main analyses, we used multinomial regression modelling with maximum likelihood estimation (Menard, 2001). In each model, we included three levels of the dependent variable (skilled, semi-professional and professional), and the independent variables were career barriers, school engagement, academic control beliefs, general ability and reading ability. The models were used to determine if these five independent variables were associated with an increased or decreased likelihood of parents (in respect to their children) or children selecting a particular category of career aspirations and expectations. To allow for all comparisons among the three categories of expectations/aspirations, we estimated two models for each dependent variable, with each model having a different career expectation/aspiration comparison category. This resulted in fitting a total of eight models.

In the first model for each career expectation/aspiration measure, we used the skilled category as the comparison group. This allowed us to identify the variables that were associated with an increased/decreased likelihood of being in semi-professional or professional categories as compared to the skilled career category. In the second model for each career expectation/aspiration measure, we used the professional category as the comparison group. This allowed us to identify the variables that were associated with an increased/decreased likelihood of being in the semi-professional or skilled categories as compared to the professional category. Model fit statistics reported are the goodness-of-fit χ^2 statistic, and Nagelkerke's (1991) pseudo- R^2 . These statistics do not change even if the comparison group is changed.

Results for the parent reports of career aspirations for their children, parent reports of career expectations for their children, child reports of career aspirations, and child reports of career expectations are presented in Tables 2–5, respectively. In these tables, we report parameter estimates (B), standard errors of B (SEB), and odds ratios (OR) with 95% confidence intervals for career status categories other than the comparison group. For example, in the first model in each table, the magnitude of the effect of each predictor on having aspirations or expectations in the semi-professional and professional categories, as compared to the skilled category, is shown by the estimated parameter estimates (B). The odds ratio represents the increased or decreased odds of having a career aspiration or expectation in the semi-professional and professional categories rather than in the skilled category. For example, when the OR for semi-professional is significantly greater than 1, this indicates the increased odds of having an aspiration or expectation for a semi-professional job compared to a skilled job. When the OR for semi-professional is significantly less than 1, this indicates the decreased odds of having an aspiration or expectation of semi-professional job compared to a skilled job.

3.2.1. Parents' career status aspirations

Table 2 summarises the results of the two models of parents' career status aspirations for their children. These models were significant, $p < .01$, and reading ability was significantly correlated with parents' career status aspirations, $p < .01$. When the skilled career category was the comparison group in Model 1, for every one unit increase in children's reading ability, parents were about 2.6 times more likely to have aspirations for their children of a professional career rather than a skilled career, OR = 2.55, 95% CI 1.33 to 4.88. The converse also was found in Model 2 when the professional category was the comparison.

3.2.2. Parents' career status expectations

Table 3 summarises the results of the two models of parents' career status expectations for their children. These models were significant, $p < .01$, and children's general ability and reading ability were significantly correlated with parents' career status expectations, $p < .01$ for each. When the skilled career category was the comparison group (Model 1), for every one unit increase in children's general ability, parents were about 1.1 times more likely to have aspirations for their children of a professional career rather than a skilled career, OR = 1.11, 95% CI 1.03–1.20. Similarly, and independent of general ability, for every one unit increase in reading ability, parents were about 1.9 times more likely to have aspirations for their children of a professional career rather than a skilled career, OR = 1.92, 95%

Table 2

Results of multinomial regression analyses of parents' career status aspirations for children; $N = 173$

	LR χ^2	B (SEB)	OR	OR 95% CI
<i>Model 1, compared to skilled career category</i>				
Child-reported career barriers	1.78			
Semi-professional career		-.05 (.04)	.95	.88–1.03
Professional career		-.04 (.04)	.96	.90–1.04
School engagement	3.00			
Semi-professional career		-.06 (.05)	.95	.86–1.04
Professional career		.00 (.04)	1.00	.92–1.09
Academic control beliefs	1.59			
Semi-professional career		.19 (.16)	1.21	.89–1.64
Professional career		.08 (.13)	1.08	.83–1.40
General ability	4.09			
Semi-professional career		.04 (.04)	1.04	.96–1.14
Professional career		.08 (.04)	1.08	1.00–1.17
Reading ability	9.37**			
Semi-professional career		.51 (.37)	1.66	.81–3.39
Professional career		.94 (.33)**	2.55	1.33–4.88
<i>Model 2, compared to professional career category</i>				
Child-reported career barriers	1.78			
Skilled career		.04 (.04)	1.04	.97–1.12
Semi-professional career		-.02 (.03)	.98	.93–1.05
School engagement	3.00			
Skilled career		.00 (.04)	1.00	.92–1.08
Semi-professional career		-.06 (.04)	.94	.88–1.01
Academic control beliefs	1.59			
Skilled career		-.08 (.13)	.93	.71–1.20
Semi-professional career		.11 (.12)	1.12	.88–1.43
General ability	4.09			
Skilled career		-.08 (.04)	.93	.86–1.00
Semi-professional career		-.04 (.04)	.96	.90–1.03
Reading ability	9.37**			
Skilled career		-.94 (.33)**	.39	.21–.75
Semi-professional career		-.43 (.27)	.65	.38–1.10

Note. Models 1 and 2, $\chi^2 = 37.36$, $df = 10$, $p < .01$, pseudo- $R^2 = .23$. LR, likelihood ratio; OR, odds ratio; CI, confidence interval; SEB, standard error of parameter estimate, B .

** $p < .01$.

CI 1.12–3.31. In addition, reading ability differentiated parents' aspirations for a semi-professional vs. a skilled career, with the odds of parents' expectations of a semi-professional career increasing by about 2.6 with every one unit increase in reading ability, OR = 2.55, 95% CI 1.41–4.61.

In Model 2 (Table 3), when the professional career category was the comparison group, the converse associations reported in Model 1 were found, as well as one new association between general ability and parents' career expectations. In this case, children's general ability also differentiated parents' expectations for a semi-professional vs. a professional career for their children, with the odds of a semi-professional career reduced by about .90 for every one unit increase in general ability, OR = .90, 95% CI 0.83–0.97. In other words, parents were more likely to expect their child to have a professional career rather than a semi-professional career if they had relatively higher

Table 3
Results of multinomial regression analyses of parents' career status expectations for children; $N = 166$

	LR χ^2	B (SEB)	OR	OR 95% CI
<i>Model 1, compared to skilled career category</i>				
Child-reported career barriers	1.21			
Semi-professional career		.03 (.03)	1.03	.97–1.10
Professional career		.01 (.03)	1.01	.94–1.07
School engagement	0.87			
Semi-professional career		-.01 (.04)	.99	.92–1.06
Professional career		.02 (.04)	1.02	.95–1.09
Academic control beliefs	2.46			
Semi-professional career		.19 (.13)	1.21	.94–1.56
Professional career		.13 (.13)	1.14	.89–1.46
General ability	10.11**			
Semi-professional career		.00 (.04)	1.00	.93–1.07
Professional career		.10 (.04)**	1.11	1.03–1.20
Reading ability	11.38**			
Semi-professional career		.94 (.30)**	2.55	1.41–4.61
Professional career		.65 (.28)*	1.92	1.12–3.31
<i>Model 2, compared to professional career category</i>				
Child-reported career barriers	1.21			
Skilled career		-.01 (.03)	1.00	.93–1.06
Semi-professional career		.03 (.03)	1.03	.97–1.10
School engagement	0.87			
Skilled career		-.02 (.04)	.98	.92–1.05
Semi-professional career		-.03 (.04)	.97	.90–1.04
Academic control beliefs	2.46			
Skilled career		-.13 (.13)	.88	.69–1.12
Semi-professional career		.06 (.14)	1.06	.81–1.39
General ability	10.11**			
Skilled career		-.10 (.04)**	.90	.84–.97
Semi-professional career		-.11 (.04)**	.90	.83–.97
Reading ability	11.38**			
Skilled career		-.65 (.28)*	.52	.30–.90
Semi-professional career		.28 (.29)	1.33	.75–2.35

Note. Models 1 and 2, $\chi^2 = 39.37$, $df = 10$, $p < .01$, pseudo- $R^2 = .24$. LR = likelihood ratio. OR = odds ratio; CI = confidence interval; SEB = standard error of parameter estimate, B .

* $p < .05$.

** $p < .01$.

general ability, but reading ability did not differentiate parents' expectations of a professional vs. a semi-professional career.

3.2.3. Children's career status aspirations

Table 4 summarises the results of the two models of children's career status aspirations. These models were not significant, $p = .36$, but, as was found with parents' aspirations, reading ability had a small and significant association with children's career status aspirations, $p < .05$. When the skilled career category was the comparison group in Model 1, for every one unit increase in children's reading ability, children were about 1.7 times more likely to aspire to a professional career rather than a skilled career, OR = 1.70, 95% CI 1.02–2.83. The converse also was found in Model 2, when the professional category was the comparison career category.

Table 4

Results of multinomial regression analyses of children's career status aspirations; $N = 171$

	LR χ^2	B (SEB)	OR	OR 95% CI
<i>Model 1, compared to skilled career category</i>				
Child-reported career barriers	2.64			
Semi-professional career		.00 (.04)	1.00	.93–1.09
Professional career		-.04 (.03)	.96	.91–1.02
School engagement	0.94			
Semi-professional career		-.02 (.04)	.98	.90–1.06
Professional career		.02 (.03)	1.02	.95–1.08
Academic control beliefs	0.48			
Semi-professional career		-.04 (.15)	.96	.72–1.29
Professional career		-.08 (.11)	.93	.74–1.16
General ability	2.23			
Semi-professional career		-.03 (.05)	.97	.89–1.07
Professional career		-.05 (.03)	.95	.89–1.02
Reading ability	4.35			
Semi-professional career		.44 (.36)	1.55	.77–3.11
Professional career		.53 (.26)*	1.70	1.02–2.83
<i>Model 2, compared to professional career category</i>				
Child-reported career barriers	2.64			
Skilled career		.04 (.03)	1.04	.98–1.10
Semi-professional career		.04 (.04)	1.04	.98–1.12
School engagement	0.94			
Skilled career		-.02 (.03)	.99	.93–1.05
Semi-professional career		-.04 (.04)	.96	.89–1.04
Academic control beliefs	0.48			
Skilled career		.08 (.11)	1.08	.87–1.35
Semi-professional career		.04 (.13)	1.04	.80–1.34
General ability	2.23			
Skilled career		.05 (.03)	1.05	.98–1.12
Semi-professional career		.02 (.04)	1.02	.95–1.11
Reading ability	4.35			
Skilled career		-.53 (.26)*	.59	.35–.98
Semi-professional career		-.09 (.31)	.91	.49–1.68

Note. Models 1 and 2, $\chi^2 = 10.92$, $df = 10$, $p = .36$, pseudo- $R^2 = .07$. LR, likelihood ratio. OR, odds ratio; CI, confidence interval; SEB, standard error of parameter estimate, B .

* $p < .05$.

3.2.4. Children's career status expectations

In the last six models (Tables 2–4), children's abilities emerged as significant correlates. Similarly, reading ability was found to be associated in the final two models (see Table 5). This association was best identified when comparing the semi-professional career category to the skilled career category. For every one unit increase in children's reading ability, children were about 2.2 times more likely to aspire to a semi-professional career rather than a skilled career, OR = 2.17, 95% CI 1.10–4.27. In addition to children's reading ability, these analyses showed that children's perception of career barriers was independently associated with children's career status expectations. This association was explained when comparing the semi-professional to the professional category (Model 2). Children were about 1.1 times more likely to select a semi-professional rather than a professional career for every one unit increase in career barriers, OR = 1.10, 95% CI 1.03–1.18. Hence, children who

Table 5
Results of multinomial regression analyses of children's career status expectations; $N = 162$

	LR χ^2	B (SEB)	OR	OR 95% CI
<i>Model 1, compared to skilled career category</i>				
Child-reported career barriers	7.97*			
Semi-professional career		.05 (.04)	1.06	.98–1.14
Professional career		-.04 (.03)	.96	.91–1.01
School engagement	2.41			
Semi-professional career		.07 (.05)	1.07	.98–1.17
Professional career		.02 (.03)	1.02	.96–1.09
Academic control beliefs	0.06			
Semi-professional career		.03 (.15)	1.03	.77–1.38
Professional career		.00 (.11)	1.00	.81–1.23
General ability	1.49			
Semi-professional career		-.03 (.04)	.97	.89–1.06
Professional career		-.04 (.03)	.96	.90–1.03
Reading ability	5.47 ^a			
Semi-professional career		.78 (.35)*	2.17	1.10–4.27
Professional career		.33 (.25)	1.40	.86–2.26
<i>Model 2, compared to professional career category</i>				
Child-reported career barriers	7.97*			
Skilled career		.04 (.03)	1.05	.99–1.11
Semi-professional career		.10 (.04)**	1.10	1.03–1.18
School engagement	2.41			
Skilled career		-.02 (.03)	.98	.92–1.04
Semi-professional career		.05 (.04)	1.05	.96–1.14
Academic control beliefs	0.06			
Skilled career		.00 (.11)	1.00	.82–1.23
Semi-professional career		.03 (.14)	1.03	.78–1.37
General ability	1.49			
Skilled career		.04 (.03)	1.04	.98–1.11
Semi-professional career		.01 (.04)	1.01	.93–1.09
Reading ability	5.47 ^a			
Skilled career		-.33 (.25)	.72	.44–1.16
Semi-professional career		.44 (.32)	1.56	.83–2.92

Note. Models 1 and 2, $\chi^2 = 19.96$, $df = 10$, $p = .03$, pseudo- $R^2 = .13$. LR, likelihood ratio. OR, odds ratio; CI, confidence interval; SEB, standard error of parameter estimate, B .

^a $p = .065$.

* $p < .05$.

** $p < .01$.

perceived relatively more barriers had a significantly increased likelihood of selecting a semi-professional rather than a professional career.

4. Discussion

The results of this study are consistent with previous examinations of career development in children (Auger, Blackhurst, & Wahl, 2005; Walls, 2000) by demonstrating that primary school children are contemplating career directions. The study has shown that children have both occupational status aspirations and occupational status expectations for themselves, and that these perceptions were discrepant for some children, albeit a minority. The results are also consistent with previous studies (Usinger, 2005) that show

that parents not only want their children to do well, but that they very often have specific career and/or occupational aspirations for them. In the current study, the majority of children aspired to high status occupations (i.e., semi-profession and professional) and almost all parents aspired to high status occupations for them. There was a similarity between the status aspirations and expectations of the children and the parents, although parents were more likely to hold higher aspirations, and reduced expectations. This reflects previous findings that parents are influential in their children's career focus and aspirations (e.g., Li, 2001; Trice & Knapp, 1992), and the results are in keeping with Gottfredson's proposition that children in the third period of career development (i.e., 9–13 years) aspire to occupations based on social value and social status.

Parents' aspirations were consistent with those of their children, and it was also the case that both the parents' and children's aspirations were associated with the child's reading ability, although this was a weak effect for children's aspirations. It is likely that, as the aspirations, and the correlates of the aspirations, of the children and parents coincide, it is the parents who are being more influenced by their children's individual traits and environmental experiences, and, in turn, it is the parents' attitudes and behaviours that exact an influence on their children. That is, it is the parents who are making judgements about the status of occupations to aspire to, and it is the parents who are likely to be directly or indirectly socialising their children's career aspirations and expectations based on the observations and behaviours of their children.

Children's career status expectations were associated with only one of the measures included here, that of career barriers, with children having higher expectations when they perceived fewer barriers. The situation was different for parents. Parents' expectations for their children were higher when the children had better reading ability and higher general ability. This suggests that parents' occupational expectations for their children may be more influenced by the ability and academic potential they identify in their children, rather than influenced by psychosocial barriers, as was the case with the children's expectations. These results are consistent with Shaywitz et al. (1999), who found that teachers considered adolescents with a reading disability less likely to complete high school and less likely to have professional careers.

The present study found no differences between boys and girls on career aspirations and expectations, and there were no differences in parents' aspirations and expectations for boys and girls. Whether this reflects societal changes associated with increased gender equity or indicates that differential gender processes associated with compromise and circumscription have not yet come into play, is difficult to determine from these data. Some authors (e.g., McMahan & Patton, 1997) suggest that adolescent girls are heavily influenced by gender role expectations and compromise their career aspirations because of this, whereas adolescent boys are more strongly influenced by their ability and academic achievements (Danziger, 1983). In the present study, abilities and academic achievement were not influential in the decision making processes of either boys or girls, suggesting that abilities do not have a major influence in the early stages of career development, at least at the end of primary school. This was not the case for parents, however, with parents of lower ability children having lower expectations and aspirations for their children. These self-evaluations and insights for children may make a difference in later years of schooling when adolescents begin to make subject selections and think about pathways to later occupations. It is possible that gender-specific influences are not important for this age group but become important in later adolescence. It is the case though, that girls and boys are

now being exposed to cultural messages that encourage both to aspire to prestigious occupations, which is a change from previous generations. This result may reflect an ongoing gender equalisation of aspirations and expectations (Watson, Quatman, & Edler, 2005). The fact that parents did not differentiate between boys and girls does implicate societal influences, which in turn are also likely to influence directly the children's aspirations and expectations (Danziger, 1983).

In this study, approximately one in five children (and one in three parents) held higher career status aspirations than expectations. This is not consistent with previous research that has suggested that younger children do not differentiate between their career aspirations and career expectations (Auger et al., 2005), although it is consistent with behaviours of older adolescents who have been widely reported to have lower expectations than aspirations (Hartung et al., 2005). The evidence from this study is that children in late primary school have already commenced the process of career compromise/circumscription, or have assimilated their parents' aspirations and expectations for them. However, there were no barriers associated with the children's discrepancies between aspirations and expectations. Hence, it was unclear how or why children were making these compromises in Grade 7. Again, it may be parental socialisation, as parental compromises were associated with the children's ability levels and acquired academic skills. Children, whose parents held lower expectations than aspirations for them, had lower general ability than children whose parents held similar aspirations and expectations. This means that none of the variables measured in this study influence discrepancies between aspirations and expectations for the children. However, parents were making judgements about reducing expectations *vis-à-vis* aspirations based on an assessment of their child's ability. Thus, in Gottfredson's (1996) terms, the children's aspirations were being compromised and circumscribed, although this was unrelated to variables collected in the study. The parents' aspirations, on the other hand, were being circumscribed based on their assessment of their child's ability. Parents compromising/circumscribing their children's aspirations, and the effect of this on their children's career development, have not been reported in the literature. Future studies need to test for these effects in more detail.

This study found that these young people could identify career goals and directions, some were experiencing compromise of their career aspirations, and some had parents who also reported holding compromised aspirations for them. Because of these issues, it is important for schools to consider career education and guidance prior to and during the Grade 7 turning point and not defer addressing these topics until children reach secondary school (i.e., Grade 9 or later). This is especially the case as there is some indication that aspirations and expectations have motivational implications for both educational attainment and final career choices (Schoon & Parsons, 2002). Additionally, children who express low aspirations/expectations, which are poorly informed, may unnecessarily constrain their future opportunities (Rojewski & Hill, 1998). Given the association between children's and parents' aspirations and expectations, and our interpretation of likely direction of causality from parents to children, involving parents in vocational development programs for their children would be very desirable.

4.1. Limitations

The study has several limitations that are worth noting. The career-related measures for the study were not devised specifically for children of this age group. This reflects a general

lack of focus on the career development of young children (Hartung et al., 2005) and better tools must be developed if we are to capture the career experiences of children below high school and college where the traditional career focus has been. We also used single-item measures to tap the variables of occupational aspirations and occupational expectations, which were the main focus of the study. While it is important to limit the number of items that children are asked to complete, future studies in this area should devise multi-item scales to tap into these constructs. This would avoid some of the restrictions associated with the use of single questions. Finally, findings from the discrepancy analyses, although limited, need to be interpreted with some caution. Categorical variables were subtracted from one another to form this score, whereas, technically, interval scale measures are needed for this to be done. This procedure, which has been used by other researchers, and has provided interesting and useful information, needs to be developed more fully in the future.

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