RESEARCH

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Perceived Competence, Discrepancy Scores, and Global Self-Worth

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According to Harter (1985a), global self-worth (GSW) can be predicted from the relationship between perceptions of competence and importance ratings. In this study, we employed Harter's (1985b) Importance Rating Scale (IRS) and Self-Perception Profile for Children (SPPC) to examine importance ratings, discrepancy scores, and domain-specific perceptions of competence as predictors of GSW. Children (N = 130, 62 boys and 68 girls) aged 8-12 years were categorized into high (HMC; n = 62) and low motor coordination (LMC; n = 68) groups according to their scores on a motor proficiency battery (McCarron, 1982). Regression analyses using domain-specific perceptions of competence, importance, and discrepancy scores confirmed that self-perception ratings were the best predictors of GSW. For both groups, perceptions of physical appearance, social acceptance, and behavioral conduct contributed significantly to prediction of GSW. By contrast, perceived athletic competence increased prediction of GSW for the HMC group but not the LMC group.

Athletic ability is highly valued by a majority of children and youth (Evans & Roberts, 1987). Comparison processes in the athletic domain occur in physical education and organized sport as well as in the unstructured contexts of play and games. Children with movement difficulties are more likely to face failure or exclusion in sport and on the playground (Smyth & Anderson, 2000; Symes, 1972). Yet we know little of the processes underlying their self-esteem. These children struggle in physical education, and on sports days are likely to experience humiliation before their peers, teachers, and parents. Therefore, it seems likely that the social, psychological, and physical experiences of these children impact on the relative contribution of domain-specific perceptions of competence and importance to global self-worth (GSW).

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GSW is the overall evaluation of one's perceived worth as a person (Harter, 1981, 1985a). According to Harter, perceptions of competence in domains of importance and perceptions of social support impact on one's level of self-worth. Within Harter's developmental model, GSW changes over the early childhood years as self-representation first becomes differentiated. By middle childhood, there is a shift from the confusion of actual with ideal self to the use of social comparison to evaluate the self. In middle childhood, the focus of this paper, self-perceptions become more differentiated. Harter (1985b) found that perceptions of scholastic competence, social acceptance, athletic competence, physical appearance, and behavioral conduct to be specific content domains related to GSW of children in this age range. These domains change and differentiation continues into adulthood.

Harter's (1978, 1981) competence motivation theory has provided researchers with an appealing framework within which to study psycho-social aspects of children who face repeated failure in the motor domain. The Self-Perception Profile for Children (SPPC; Harter, 1985b) and accompanying Importance Rating Scale (IRS) provide developmentally appropriate tools that can measure perceived competence, global self-worth, and discrepancies between the perceived and ideal self. However, researchers also need to look at the bigger picture implicit in Harter's framework. By examining the differences between children with low motor competence (LMC) and children with high motor competence (HMC) in relationships among perceived competence and other components of Harter's model, we may gain increased understanding of the varied means by which the individual attempts to cope with differences in motor coordination.

In Harter's model, there are psycho-social implications not only for individuals who are successful in domain-specific encounters but also for those who repeatedly confront failure in specific domains of competence. The concept of competence relates to the internal satisfaction experienced as a result of an individual's positive influence on the environment. It has been expressed as feelings of self-efficacy (Bandura, 1977), competence motivation (Harter, 1978, 1981), and is considered intrinsic to the self-system (Markus, Cross, & Wurf, 1990). According to Markus and colleagues, self-structures are inherent in the formation of perceptions of incompetence. These self-perceptions emerge when individuals attempt to define themselves in certain ways but do not possess the corresponding abilities. The notions of competence and incompetence have important implications for children who wish to meet the cultural demands of play, games, and sport but lack the motor resources.

Several studies have shown that children with low levels of motor competence have lower perceptions of athletic competence (Cantell, Smyth, & Ahonen, 1994; Van Rossum & Vermeer, 1990). Other studies have demonstrated that poor coordination not only influences athletic self-perceptions but also permeates other aspects of self-esteem and GSW (Losse et al., 1991; Rose, Larkin, & Berger, 1997; Schoemaker & Kalverboer, 1994). We do not know if children with low motor competence are able to discount or disregard their inadequacy in movement in order to protect their overall self-esteem. The relationship between GSW, perceived competence, and the importance children place on specific achievement domains has not been explored in children with different levels of motor coordination.

William James (1892) proposed that success in a particular achievement domain will positively impact on an individual's overall self-system, but only if

the individual values success in that domain. The self-system will not be affected in a domain that the individual perceives unimportant. According to James (1892) and Harter (1985a, 1990, 1999), GSW can be protected from the negative effects of low self-perceptions in a specific domain by discounting the importance of that domain. This view is consistent with the perspective of other researchers in self-esteem (Fox, 1997; Markus & Wurf, 1987). According to Harter, only those domains considered to be important by the individual will affect GSW. Harter uses a discrepancy score (DIS) based on the difference between perceived competence and importance ratings to indicate the cumulative effect of domain discrepancies on self-worth. If a child perceives high competence in an area judged as important, there is little discrepancy and as a result, he/she would perceive high GSW. However, a child who perceived low competence in a domain that he or she values highly would have a large discrepancy between perceived competence and importance ratings resulting in the attenuation of GSW. A large negative DIS is predicted to be associated with low self-worth. By contrast small negative, zero, or positive DIS scores are predicted to be associated with high self-worth.

Discounting the importance of athletic competence by children who have difficulty in movement might explain how some of them avoid lowered GSW. By contrast, children who cannot discount the value they place on athletic competence will experience a competence/importance discrepancy. This is more likely to occur in domains such as sport that are culturally dominant and more difficult to override. Considering that self-perceptions and physical activity are important to overall health, we need greater understanding of the processes involved in formation of GSW, especially in children who have difficulty in meeting the demands in play, games, and sport.

There are conflicting reports on the use of importance ratings in predicting GSW. Harter (1985a, 1999) has demonstrated the value of using discrepancy scores in understanding the complex nature of GSW. However, others (Marsh, 1986, 1993, 1994; Marsh & Hattie, 1996) question the use of importance ratings and discrepancy scores in predicting GSW when compared to using self-perception scores alone. Similarly, Marsh and Sonstroem (1995) found that importance ratings failed to add to the prediction of GSW. In sport-specific studies (Ebbeck & Stuart, 1993; Hoge & McCarthy, 1984) perceived competence was the stronger predictor of GSW when compared with perceived competence combined with group or individual importance ratings. Likewise, Clever, Bear, and Juvonen (1992) found little support for the use of discrepancy scores in predicting GSW in children with learning disabilities and low achievement. Although Harter (1986, 1999) provides empirical support for her discrepancy score (DIS) in normal and special populations, research has not addressed this issue in children with poor motor coordination. DIS is a composite score constructed on the basis of high importance ratings and this might limit its usefulness with children who have low perceptions of competence and thus relatively low importance ratings. While it seems logical from the psycho-social standpoint that GSW can be predicted in terms of ratios of success to aspirations, there is little encouragement from empirical findings for researchers to employ the DIS to predict GSW.

In attempting to minimize the impact of poor motor coordination on overall sense of worth, children with LMC may use different processes than those used by their better-coordinated peers. In the present study, we attempted to better understand processes underlying the formation of GSW of children, ages 8 to 12 years,

with high and low levels of motor coordination. Initially, we examined differences in importance ratings and discrepancy scores between these two groups. We hypothesized that children with LMC will devalue the importance of the athletic domain so that importance ratings will be lower than those of the group with high motor coordination levels. In turn, this would reduce the competence/importance discrepancy in the athletic domain, a self-protective strategy to maintain a satisfactory GSW. Then we addressed our main purpose, which was to evaluate the relationship between GSW and discrepancy scores computed from scores on Harter's (1985b) Self-Perception Profile for Children (SPPC) and Importance Rating Scale (IRS) in children of low and high motor coordination levels. We explored a number of models to find the best prediction of GSW from perceptions of competence, importance ratings, and discrepancy scores in these two groups.

Method

Participants

In the first instance, 380 children from three coeducational primary schools in a predominantly middle class area in Perth, Australia participated in a larger project exploring the relationship between movement competence and psychosocial factors (see Rose et al., 1997; Rose, Larkin, & Berger, 1998 for more detail). In addition to gaining the permission of the children to participate, we obtained parental permission. Eighty-six percent of permission forms were returned with parental approval for the children to participate in this study. From this sample, we obtained a subsample of 130 children from Grades 4, 5, and 6 with a mean age of 10 years and 4 months and ranging from 8 to 12 years. According to Harter (1999), children in this age group are able to differentiate their self-perceptions across specific competency domains and make meaningful and reliable judgments about their self-worth. They also are frequently exposed to play, games, and sport situations in which motor incompetence may be associated with psycho-social problems.

The children were grouped into high motor coordination (HMC; $n = 62$; 30 boys and 32 girls) and low motor coordination levels (LMC; $n = 68$; 32 boys and 36 girls) according to scores on the MAND McCarron Assessment of Neuromuscular Coordination battery (McCarron, 1982). This battery is suitable for discriminating between children with different levels of coordination as it has an overall score, the Neurodevelopmental Index (NDI), ranging from a low of 40 to a high of 155 with a mean NDI score of 100. Children were grouped into the LMC group if they had an NDI score ≤ 80 (M = 73.9). According to McCarron (1982), children with NDI scores of less than 85 points have movement difficulties. All those in the HMC group were more than one standard deviation above the sample mean NDI score on the MAND, with a group NDI mean of 121.2.

Instruments

Self-Perception Profile for Children (SPPC; Harter, 1985b). This instrument has five subscales that measure specific perceptions of competence in the scholastic, behavioral conduct, social acceptance, physical appearance, and athletic domains. A sixth subscale measures global self-worth and taps the overall value placed on oneself. The SPPC employs a structured alternative format. Each

subscale consists of six items comprised of two statements, one on the left hand side of the page and one on the right, each separated by the word "BUT." An example from the athletic subscale of Harter's SPPC is "Some kids do very *well* at all kinds of sports, BUT other kids *don't* feel they are very good when it comes to sports." The children were asked to choose the statement that is most like them. They then marked whether the statement they chose was *really true* for them or *sort of true* for them. The score for each item can range from 1 (*least favorable self-perception*) to 4 (*most favorable*). Subscales are obtained by averaging item scores in the respective domains. Harter (1985a) reported that the reliability of the subscales ranged from .74 for behavioral conduct up to .83 for the athletic subscale. Internal consistency reliability for our database ranged from .74 for global self-worth to .83 for perceived scholastic competence.

Importance Ratings and Discrepancy Scores (IRS). In order to obtain importance ratings and calculate discrepancy scores, Harter (1985b) designed the IRS to be administered in conjunction with and immediately following the SPPC. The IRS includes five two-item subscales (scholastic, behavioral conduct, social acceptance, physical appearance, and athletic) measuring the child's perceived importance of each competency domain and uses the same format and scoring procedures as the SPPC. There is no subscale for the importance of GSW. An example of an item measuring the importance of athletic competence reads, " Some kids think it's important to be good at sports, BUT other kids don't think how *good* you are at sports is that important."

The domain-specific self-perception ratings and the importance ratings enabled the computation of perceived competence/importance discrepancy scores for each domain. First, discrepancy scores (DIS) were calculated according to the procedures outlined by Harter (1985b). In Harter's view, it was critical to assess how adequate a child feels in only those domains judged as important. For each child, domain-importance scores are subtracted from his or her respective perceptions of competence scores, but only if a given domain is perceived to be important by that child, with a mean rating of 3.0 or higher on the 4-point scale. Domains rated unimportant are assigned a score of zero. An overall discrepancy score (DIS) was calculated by summing the discrepancy scores for each domain.

The McCarron Assessment of Neuromuscular Coordination (MAND). The 10-item MAND battery (McCarron, 1982), designed to measure motor coordination, was used to identify LMC and HMC groups from a larger sample of children. The MAND includes five fine and five gross motor items: (a) beads in box, (b) beads on rod, (c) finger tapping, (d) nut and bolt, (e) rod slide, (f) grip strength, (g) finger-nose, (h) standing broad jump, (i) heel-toe walk, (j) one-foot balance. The ability of the MAND to discriminate children with different levels of motor performance has been demonstrated in a number of studies (e.g., O'Beirne, Larkin, & Cable, 1994; Tan, Parker, & Larkin, 2001). Test-retest reliability coefficients are provided by McCarron (1982, p. 15) and show $r = .99$ for the total motor score. The raw scores from each item are converted to age-scaled scores ranging from 1 to 20 ($M = 10$). The sum of the scaled scores are then converted to the NDI score.

Design and Procedure

Self-perception and importance rating data were collected from each grade, and subsequently, motor coordination data were collected individually in a room allocated for this purpose. Prior to data collection, the researcher explained the purpose

of the project, emphasizing that the questionnaires were surveys (not tests), and that there were no right or wrong answers. Each child recorded responses on the questionnaire in her or his regular classroom in a 20 min morning session. After the SPPC and IRS were completed, the same researcher administered the MAND to identify the children's levels of motor coordination. Testing required approximately 20 min from each student.

Data Analysis

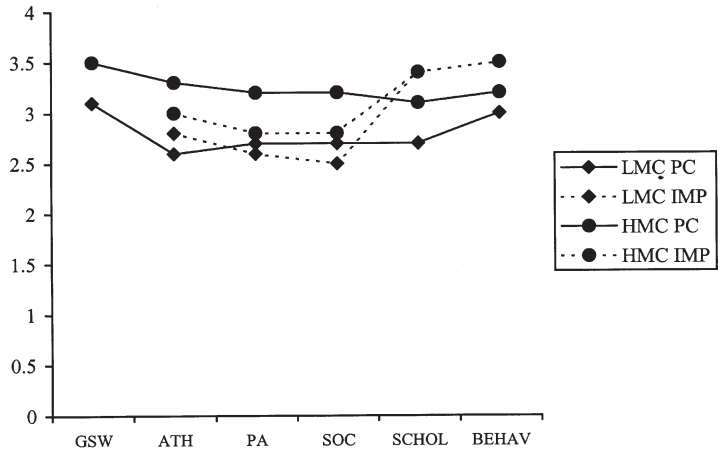
MANOVAs were used to identify group differences (Coordination × Gender) in domain-specific importance ratings and discrepancy scores. Follow-up ANOVAs were used where appropriate. ANOVA was used to identify group differences based on the DIS. A number of regression analyses models were fitted for the two coordination groups. Gender was initially explored in unreported analyses and did not contribute to prediction of GSW except for the importance ratings. Three models of the relationship between GSW and competence ratings, importance ratings, and discrepancy scores were explored using multiple regression analysis (SAS/STAT REG) to see which ratings provided the best prediction of GSW. Then the relationship was modeled between GSW and an average perception of competence (APC) and the DIS score (Harter, 1985b). The final model included (a) the domain-specific contributions of self-perception and (b) competence/importance discrepancy scores to see if discrepancy scores improved prediction of GSW over that of domain specific self-perceptions. The stepwise procedure was used to identify the most parsimonious model.

Results

Importance Ratings and Competence/Importance Discrepancy Scores

MANOVA of importance ratings showed no significant difference between the LMC group and the HMC group and no interaction between gender and coordination level. There was a significant effect of gender ($F_{(5, 122)} = 2.88$, $p = .02$), and follow-up ANOVAs indicated that there was a significant difference ($p = .021$, $\gamma = .4$) for the rating of scholastic importance with girls ($M = 3.55$, $SD = 0.58$), rating it higher than boys ($M = 3.28$, $SD = 0.73$). There was no significant difference between the coordination groups for the rating of athletic importance ($p > .1$), although the means were in the predicted direction with the LMC group rating athletic importance lower than the HMC group (Figure 1).

MANOVA of the domain-specific competence/importance discrepancy scores yielded a significant effect of coordination group ($F_{(5, 122)} = 3.15$, $p = .01$) and of gender ($F_{(5, 122)} = 3.08$, $p = .01$), but no interaction. Follow up ANOVAs indicated that there were significant differences between coordination groups for athletic discrepancy ($p = .024$, $\gamma = .4$), scholastic discrepancy ($p = .001$, $\gamma = .6$), and social discrepancy ($p = .03$, $\gamma = .4$). The LMC group had less discrepancy or more negative discrepancy scores than the HMC group (see Table 1 and Figure 1). There was a significant difference ($p = .028$, $\gamma = .4$) between boys and girls for the physical appearance discrepancy score ($M = 0.49$, $SD = 1.1$; $M = 0.07$, $SD = 1.0$, respectively).



GSW = global self-worth, ATH = athletic, PA = physical appearance, SOC = social, SCHOL = scholastic, BEHAV = behavioral

Figure 1 — Mean ratings for GSW and domain specific perceived competence (PC) and importance ratings (IMP) for the low motor coordination (LMC) and high motor coordination (HMC) groups.

Table 1 Means and Standard Deviations for Domain-Specific Discrepancy Scores for Low Motor Coordination (LMC) and High Motor Coordination (HMC) Groups

	Discrepancy Scores	
Domain	LMC Group	HMC Group
Athletic	–0.02 (.73)	0.27 (.77)*
Physical appearance	0.19 (1.18)	0.35 (.97)
Social acceptance	0.12 (1.07)	0.51 (.89)*
Scholastic	–0.75 (.68)	–0.27 (.84)*
Behavioral conduct	-0.38 (.58)	–0.20 (.61)

*$p < .05$

ANOVA showed that there were significant differences between the HMC group and the LMC groups for the DIS composite score ($p = .011$, $\gamma = .5$). Although both groups had a negative mean discrepancy score, the HMC group's discrepancy was smaller ($M = -0.31$, $SD = 0.61$) than that of the LMC group ($M = -0.59$, $SD = 0.62$). There were no significant gender differences or interactions.

Correlations With GSW for Coordination Groups

The relationship between GSW and the discrepancy score differed for the two groups. For the LMC group, the correlation between GSW and DIS ($r = .18$) indicated that Harter's discrepancy score showed little relationship with GSW. The relationship between GSW and DIS ($r = .38$) was stronger in the HMC group. The correlations between GSW and domain-specific perceptions, importance ratings, and discrepancy scores for the LMC and HMC groups provided further evidence that children from the LMC group respond differently when compared to the HMC group (see Table 2).

In order to gain a better understanding of the relationship between GSW, perceived competence, importance ratings, and competence/importance ratings, each set of domain-specific scores were regressed on GSW. The results showed that self-perceptions were better predictors of GSW than the importance ratings or discrepancy scores (see Table 3). For the LMC group, the regression analysis showed that the perceived competence scores accounted for 64% of the variance in GSW with significant contributions made by perceptions of physical appearance, social acceptance, and behavioral conduct. For the HMC group, the perceived competence scores accounted for 60% of the variance in GSW with significant contributions from perceived athletic competence as well as physical appearance, social acceptance, and behavioral conduct. The relationship between importance ratings and GSW were much lower for each group, explaining just 3% of the variance for the LMC group and 11% for the HMC group (see Table 3). Although the domain-specific discrepancy scores were more successful at predicting GSW than the importance ratings, the prediction was still far below that of the perceived competence scores. For the LMC group, 25% of the variance in GSW was accounted for, and both physical appearance and scholastic discrepancy scores contributed significantly to the model. For the HMC group, only 15% of the variance was explained and no variables made a significant contribution (see Table 3).

Table 2 Correlations Between Global Self-Worth (GSW) and Domain-Specific Perceptions, Importance Ratings, and Discrepancy Scores for the LMC and HMC Groups

	GSW & Perceptions		GSW & Importance		Discrepancy & GSW	
Domain	LMC	HMC	LMC	HMC	LMC	HMC
Athletic	.43*	.60*	.22	.24	.21	.24
Physical appear	.76*	.55*	-.05	.33*	.51*	.01
Social	.46*	.52*	.06	.11	.26*	.26*
Scholastic	.31*	.59*	.17	.14	.15	.35*
Behavioral	.30*	.62*	.17	.33*	.08	.29*

* $p < .05$

Table 3 Regression Models With Beta Weights for Prediction of Global Self-Worth Based on Perceptions of Competence, Importance Ratings, and Discrepancy Scores

Group	Adj R^2	Athletic	Physical	Social	Behavior	Scholastic
			GSW and Self-Perceptions			
LMC	.6382	.03	.55**	.15*	.20*	.05
HMC	.6046	.27*	.21*	.18*	.21*	.11
			GSW and Importance Ratings			
LMC	.0329	.17	–.11	.06	.08	.11
HMC	.1127	.02	.18	–.05	–.24	.00
			GSW and Discrepancy Scores			
LMC	.2540	.08	.30*	–.07	–.13	.23
HMC	.1532	.06	–.09	.15	.18	.16

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

Two final models were tested to address whether discrepancy scores added significantly to prediction of GSW over that predicted by self-perceptions alone in children with different levels of motor coordination. The initial regression analyses included the composite APC and DIS scores. The results for each group showed that the APC score was a better predictor of GSW, and the DIS score did not add to the prediction. For the LMC group, the stepwise analysis showed that the average perceived competence score accounted for 51.8% of the variance in GSW. For the HMC group, the average perceived competence score accounted for 63% of the variance with GSW.

The second stepwise regression included all domain-specific competence and discrepancy scores. The variables remaining in the model for the LMC group explained 66% of the variance and again included self-perceptions of physical appearance, social acceptance, and behavioral conduct (see Table 4). All other self-perception and discrepancy variables did not improve that prediction. Similarly for the HMC group, self-perceptions were the better predictors of GSW with significant contributions from perceived athletic competence, perceptions of behavioral conduct, physical appearance, and social support to give a combined R^2 of .63. Discrepancy ratings did not contribute further to the prediction of GSW in either group.

Discussion

Overall, the importance ratings and discrepancy scores did not contribute to improving prediction of GSW over that of the domain-specific competence ratings. The importance ratings did not differ significantly between the coordination groups, even in the athletic domain. It was notable that both groups rated behavioral conduct

Table 4 Summary of Stepwise Regression for Prediction of Global Self-Worth Using Domain Specific Self-Perceptions and Discrepancy Scores as Predictors

Step[a]	Variable	Partial R^2	Model R^2	C(p)	F value	Prob > F
			LMC Group			
1	PCPA	.58	.58	12.8	93.1	.000
2	PCB	.04	.63	7.2	7.1	.009
3	PCSOC	.03	.66	2.9	6.4	.014
			HMC Group			
1	PCB	.38	.38	37.2	37.2	.000
2	PCA	.15	.54	15.3	19.7	.000
3	PCPA	.05	.59	8.5	8.2	.006
4	PCSOC	.03	.63	5.2	5.2	.026

[a]No other variables met the .10 significance level for entry into the models.

and scholastic importance higher than the other three domains, including physical appearance. The discrepancy scores revealed differences between the LMC and HMC groups in the athletic, social, and scholastic domains, with the HMC group having the more positive discrepancy. Although the mean athletic discrepancy score for the LMC group was less positive than that of the HMC group, it hovered around zero, reflecting relative agreement between lower self-perception ratings and lower importance ratings (see Figure 1). Of additional interest was that both the behavioral and scholastic discrepancy scores were negative for both groups. Taken together, the behavioral and scholastic domains had the highest importance ratings and the greatest discrepancy scores for each group. This possibly indicated an external influence of significant others on children in this age group. According to Harter (1999), the behavioral and scholastic domains are more strongly influenced by parents' aspirations, whereas the other domains are tempered more by peer group influences. For the elementary school children in our study, regardless of coordination level, the discrepancies between perceived and ideal selves emerge in domains upon which parents are likely to place more importance.

Results from the initial regression analyses revealed that for both groups, average perceived competence scores are better predictors of GSW than the discrepancy scores or importance ratings. For the LMC group, the perceived competence scores accounted for more of the variance (63.8%) in GSW and likewise for the HMC group (60.4%). Combinations of the average competence score and the DIS score resulted in lower prediction for the LMC group (51.5%) and a similar prediction for the HMC group (61.6%). In sum, the discrepancy score, DIS, calculated according to Harter's (1985b) guidelines with a 3.0 cut off score for importance had a low correlation with GSW especially for the LMC group and did not increase prediction of GSW.

Our findings with DIS are somewhat consistent with those of Marsh (1986, 1993, 1994) and Marsh and Sonstroem (1995). Our results also lend support to findings in specific sporting contexts where discrepancy scores did not improve

prediction of GSW (Ebbeck & Stuart, 1993; Hoge & McCarthy, 1984). Our results also concur with the findings of Clever et al. (1992) that use of importance ratings in conjunction with perceived competence scores did not add to the prediction of GSW in children who differed in academic learning ability. It appears that across a range of samples (children playing particular sports, children with and without learning difficulties, or children with high and low motor competence in the present study), discrepancy scores do not assist in prediction of GSW. However, these findings provided important information about differences between the coordination groups. It was the HMC group that tended to underrate importance by comparison with their perceptions of competence.

In our study, neither the HMC nor the LMC group discounts according to the formula used in Harter's model. Discrepancy scores, therefore, do not appear to be direct indicators of how children strive to protect their overall self-worth. In order to enhance overall sense of worth, individuals may employ a number of mechanisms (Bandura, 1990; Taylor & Brown, 1988), and children are likely to select one or more of these mechanisms in physical activity contexts. Horn and Hasbrook (1987) showed that children differ not only in level of perceived competence but also in the criteria they use to evaluate that competence. For example, they may perceive athletic competence as important but fail to show significant discrepancy because their self-perceptions are inflated; they may be defensive about their poor motor coordination and overestimate their competence. Similar variations are likely to occur in how children place importance on particular domains.

Our examination of the contribution of domain-specific perception scores and importance ratings to GSW revealed that perceptions of physical appearance explained 58% of the variance of GSW in children with LMC. Perceived behavioral conduct and social support were the only other variables that added significantly to prediction of GSW. For the HMC group, perception of behavioral conduct was the best predictor of GSW followed by significant contributions from the perception of athletic competence, physical appearance, and social support. An important finding in our study was that athletic self-perceptions did not contribute to prediction of GSW in the group with LMC, but it did contribute to the group with HMC. It appears that in contrast to the HMC group, perception of physical appearance is the major contributor to the GSW of children with LMC. The contribution of domain-specific perceptions to GSW differs according to level of motor coordination.

Although a previous study from the same database has shown that perceptions of physical appearance are lower for children with poor coordination (Rose et al., 1997), physical appearance emerged as the main contributor to GSW in these children. By contrast, in a study with older participants (Larkin & Parker, 1997), adolescents with a history of motor difficulties had significantly higher perceptions of physical appearance than the age and gender matched control group. For the HMC group in our study, physical appearance was also important to prediction of GSW but played a lesser role. Harter (1993) reports correlations between physical appearance and GSW of .7 and .8 in typically developing populations. Our current findings show that this association is stronger in children of LMC than in children who are well coordinated. It clearly is important to examine the profiles of subgroups and individuals within subgroups to gain greater understanding of mechanisms that children may use to protect their self-worth (Harter, 1999). It seems that motor competence makes a difference in how self-perceptions relate to GSW.

We need to understand more about the discounting strategies used by children whose life experiences differ as a function of their actual and perceived levels of movement competence. We recommend that researchers consider the reference groups and the values considered important when children engage in play, games, and sport. Where possible, individuals compare themselves more readily with similar others than dissimilar others (Festinger, 1954). Although it has been demonstrated that children with learning disabilities compare themselves with their typically developing peers (Shapiro & Ulrich, 2001), this needs to be looked at in the motor domain. This is particularly important in middle childhood where children with LMC are placed in evaluative sporting contexts and comparison with their well-coordinated peers. The tendency for children with poor coordination to be more isolated, less active, and to passively observe their peers at play (Bouffard, Watkinson, Thompson, Causgrove Dunn, & Romanow, 1996; Smyth & Anderson, 2000) is likely to be related to their attempts to soften the negative impact of poor coordination on GSW. By contrast, children with HMC are more likely to play and compete with children who are athletic. They are more likely to perceive themselves as competent and to have opportunities to demonstrate that competence. It is not surprising that perceived athletic competence contributes to the GSW of the well-coordinated child.

Active engagement in play, games, and physical activity is essential if children are to improve movement competence. Children with coordination difficulties appear to sustain their perceptions of GSW by ignoring perceptions of movement competence in their construction of self. This could contribute to withdrawal from physical activity and further compromise physical and psycho-social development. We are faced with the challenge of encouraging these children to participate in physical activity in spite of their athletic ability. First, we can do this by raising levels of actual competence through movement enrichment programs that focus on lifetime activities such as swimming and cycling. Additionally, we can assist children to value enjoyment and mastery aspects of physical education and sport.

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