The Influence of Reflected Appraisals on Middle School and High School Athletes’ Self-Perceptions of Sport Competence

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This study examined the reflected appraisal process in female middle school (n = 66; M age = 12.39 – .87 years) and high school athletes (n = 88; M age = 14.70 – 1.08 years). Questionnaires assessed the athletes’ self-perceptions of sport competence and how they perceived their mothers, fathers, coaches, and teammates evaluated their ability in sport. A multiple regression analysis revealed that the various reflected appraisals predicted self-perceptions of competence (p < .01, R² = .65). Mothers (β = .19), coaches (β = .24), and teammates (β = .47) were each significant predictors, while the reflected appraisal of fathers (β = .08) was non-significant. Squared semi-partial correlations indicated that teammates accounted the greatest amount of unique (sr² = .25), followed by coaches (sr² = .08), mothers (sr² = .05), and fathers (sr² = .01). Structural equation modeling indicated that the pattern of relationships was the same for middle school and high school athletes.

Scholars (e.g., 7, 11, 18, 26) have long argued that our self-perceptions are strongly affected by our perceptions of how others view us. This effect, where we come to see our self as we believe others see us, occurs through what has been referred to as the reflected appraisal process (see 14). This process involves three basic components including: (a) the actual appraisals of others, which reflects the appraisals that a significant other forms about a target individual, (b) the target individual’s perception of the appraisals formed about him or her by the significant other, which are referred to as reflected appraisals, and (c) the target individual’s self-appraisals or self-perceptions. According to the reflected appraisal process a significant other forms an evaluation of a target individual (i.e., the actual appraisal), who then becomes aware of the significant other’s appraisal of their ability or characteristics through various social interaction processes. For example, the target individual may conclude that the significant other believes he or she has positive qualities based on the explicit causal attributions given for his or her performance, direct or indirect verbal feedback, non-verbal feedback, and/or opportunities provided by the significant other (see, for example, 11). The reflected appraisal generated by the target individual through these social interaction processes is then internalized. That is, the target individual incorporates his or her perception...
of the significant other’s appraisal into his or her own self-appraisal. If we perceive significant others view us positively, we are likely to feel good about ourselves and develop positive self-perceptions of competence. If, on the other hand, we perceive that others do not evaluate us favorably, we are likely to develop negative self-perceptions of competence.

There has been considerable support for the relationship between reflected appraisals and children and adolescents’ self-perceptions (18, 29). While the majority of this research has been conducted outside the physical domain, a handful of studies have indicated that reflected appraisals are related to children and adolescents’ physical self-perceptions. Felson (13), for example, examined the reflected appraisal process in a sample of 4th–7th grade students. Specifically, Felson tested whether children’s self-perceptions of academic competence, athletic competence, physical appearance, and popularity were related to their perceptions of how their parents viewed them in each of these areas (i.e., the reflected appraisals of parents). Minor gender differences emerged in the pattern of relationships, however, the results clearly indicated that the reflected appraisals of parents were significantly and positively related to each of the four self-perceptions after controlling for the specific self-perceptions reported by the children one year earlier.

While not a direct test of the reflected appraisal process, research by Babkes and Weiss (2) has also supported the link between children’s self-perceptions of competence and the reflected appraisals of parents. In particular, these researchers found that youth soccer players’ perceptions of their mother’s and father’s beliefs, attitudes, and behaviors were significantly related to the players’ self-reported competence, enjoyment, and motivation toward soccer.

Despite the support for the reflected appraisal process, a number of questions remain. The few studies examining the relationship between reflected appraisals and self-perceptions of physical competence of children and adolescents have been limited to parents (e.g., 2, 13). We know, however, that individuals other than parents can impact the psychological responses and characteristics of children and adolescents (5). For instance, research indicates that the behaviors and beliefs of coaches (e.g., 1, 3) and peers (e.g., 12, 30) are related to children and adolescents’ physical self-perceptions. Further, research has consistently found that others, including coaches and peers, serve as important sources of competence information for youth sport athletes (19, 21). It would be reasonable to expect then, that an athlete’s self-perception of sport competence would be affected by the reflected appraisal of his or her coaches and teammates. An inclusion of multiple significant others should provide a more complete understanding of youth sport athletes’ self-perceptions of sport competence.

Examining multiple significant other simultaneously will also allow for a test of the relative influence of these significant others. That is, which significant other has the strongest influence on athletes’ self-perceptions of competence? Based on research on sources of competence information, it is reasonable to expect to see individual differences in this regard. Specifically, studies have found that a variety of personal characteristics are related to the degree of importance placed on specific sources of competence information (e.g., 20, 22, 23). One of the most consistent findings involves the influence of age (21). For instance, studies have found that younger children tend to rely more on their parents to evaluate their ability, whereas adolescents tend to focus on peers as a source of competence information (20, 22, 23). Nevertheless, research has yet to specifically test whether these
significant others actually influence children’s and adolescents’ self-perceptions of competence differently.

The purpose of the present study was to address these issues by examining the relative influence of the various significant others on youth sport athletes’ self-perceptions of competence, and determining whether there are age-related differences in the pattern of influence. More specifically, the first purpose of this study tested whether the reflected appraisals of mothers, fathers, coaches, and teammates are predictive of athletes’ self-perceptions of competence, and if so, are there differences in the relative influence of these significant others? The second purpose was to determine if the pattern of relationships between the reflected appraisals and the athletes’ self-perceptions of competence varies depending on the athletes’ age. It was expected that the reflected appraisals of each of the significant others would be related to athletes’ self-perceptions of competence, however, the relative influence was expected to vary with age. Based on the developmental differences found in regard to the importance placed on various significant others as a source of physical competence information (19, 21) it was hypothesized that the younger athletes’ self-perceptions of sport competence would be more strongly related to the reflected appraisals of their mother and father, whereas the reflected appraisal of teammates would show a stronger relationship in the older athletes.

Method

Participants

The participant sample (N = 154) included female middle school (i.e., 6th–8th grade) athletes (n = 66; M age = 12.39 – .87 years) and high school (i.e., 9th–12th grade) athletes (n = 88; M age = 14.70 – 1.08 years) from a variety of individual and team sports (i.e., gymnastics, track and field, soccer, volleyball). The middle school athletes had been participating in their respective sports for an average of 3.52 years (SD = 2.14), while the high school athletes averaged 4.57 years (SD = 2.02). The majority of the athletes identified themselves as Caucasian (94.2%), with the remaining athletes identifying themselves as African-American (4.5%) or Hispanic (1.3%).

Procedures

Participants were recruited from various summer sport camps in the mid-western portion of the United States. Letters describing the study and consent forms were sent to the athletes’ parents prior to the start of the sport camp. The children of the parents who returned a signed consent form were then asked to participate during one session of the sport camp. During this session the primary investigator or a trained research assistant provided the athletes with a verbal and written explanation of the research being conducted. Athletes who agreed to participate signed an assent form and were then given a packet of paper-and-pencil questionnaires. The athletes were assured that all of their answers would remain confidential, and participants were permitted as much time as they needed to complete the questionnaires, which was typically about 15–20 minutes. The athletes were instructed to respond to all questions in reference to the sport that they were currently participating in at the summer sport camp (e.g., those attending volleyball camp were asked to answer questions based on their experiences playing volleyball).
Measures

Self-perceptions of competence. Three items were developed for this study to assess the athletes’ self-perception of sport competence. The items included the following questions: (a) how good do you think you are at your sport, (b) when it comes to your sport, how much ability do you think you have, and (c) how skilled do you think you are at your sport? Directions asked the athletes to respond to the items by, “Circling the response that best reflects how you feel about your ability in your current sport.” Response options for the three items ranged from not good at all to very good, not much ability at all to a whole lot of ability, and not skilled at all to very skilled, respectively. The athletes’ responses for each item were scored on a 5-point scale, with higher scores reflecting more positive self-perceptions. The responses from the 3 items were averaged, and the mean score was used as an indicator of the athletes’ self-perception of sport competence. While a variety of other self-perception of competence measures exist and have been used in the literature (see 15), these items, which possess strong face validity, were developed and used because they were easily modified to create the reflected appraisal measure.

Reflected appraisals of significant others. Twelve items designed to tap athletes’ perceptions of how others view their competence in sport were also developed for this study. Specifically, 3 items for each of the 4 significant others investigated (i.e., mother, father, coach, teammates) were developed. The wording of the 3 items used to assess each significant others’ belief were exactly the same, with the exception of the reference to the significant other being assessed. The three items included: (a) how good does your [father] think you are at your sport, (b) when it comes to your sport, how much ability does your [father] think you have, and (c) how skilled does your [father] think you are at your sport? The wording of the items paralleled the items used to measure the athletes’ self-perceptions of competence, and included the same response options. Directions asked the athletes to, “Circle the response that best reflects how you feel other people view your ability in your sport.” If an athlete did not have any personal contact with a specific significant other, they were instructed to leave those items blank.1 Athletes were also instructed to answer the questions in reference to the coach and teammates from the organized team (e.g., school, club) they were currently or most recently participating with. All responses were scored on a 5-point scale, with higher scores reflecting more positive reflected appraisals. The 3 items targeting each significant other were averaged, and the mean score was used as an indicator of the reflected appraisal of that specific significant other (e.g., reflected appraisal of father).

Background information. Each athlete was asked to complete a series of demographic questions. These questions assessed the athletes’ age, gender, race, current sport played, and number of years she participated in her sport on an organized competitive team. The participants were also asked to indicate the grade in school they had just completed. This information was included as a way to group the participants and to describe the sample.

Data Analysis

Prior to testing the major research questions, various preliminary analyses were conducted. This included examining the psychometric properties of the measures and screening for multicollinearity among the variables. Differences between the
middle school and high school athletes on the set of study variables were also examined. Finally, comparisons among the four reflected appraisals were examined to determine whether the athletes thought there were differences in how the various significant others evaluated their ability in sport.

The main research questions were examined using a variety of data analysis procedures. First, a multiple regression analysis was used to determine whether the set of reflected appraisals predicted the athletes’ self-perceptions of competence. The relative influence of the various reflected appraisals was determined by the squared semi-partial correlations. Finally, structural equation modeling was used to examine whether the regression equation was invariant for the middle and high school athletes.

Results

Preliminary Analyses

A confirmatory factor analysis was conducted to examine the psychometric properties of the reflected appraisal measure. The measure was designed to assess the reflected appraisals of 4 separate significant others, and therefore a 4-factor model was tested. Each of the 3 items representing a specific significant other was specified to load on the respective latent factor representing the reflected appraisal of that significant other. It was expected that the reflected appraisals would be related, and thus the 4 latent factors were allowed to correlate. Results indicated an adequate fit of the data, $\chi^2 (48) = 145.53, p < .01, GFI = .87, NNFI = .90, CFI = .93, RMSR = .02$. Further, the standardized path coefficients revealed that each of the items significantly ($p < .05$) and positively loaded on the respective latent factor. These results provide initial evidence of the factorial validity of the measure and suggest that the reflected appraisals are reasonably distinct. Consequently, the 4 reflected appraisals were included as separate variables in the remaining analyses.

Further evidence of the psychometric properties measures can be seen in the internal consistency estimates. Alpha coefficients were computed for all measures (i.e., self-perceptions of competence and the 4 reflected appraisals) to determine their internal consistency. Coefficients, which ranged from .76 to .91, were all above the minimum criterion of .70 (27). Correlations were also examined to determine whether multicollinearity ($r > .70$) existed among the 4 reflected appraisals. As seen in Table 1, the correlations among these variables were all positive and significant, however multicollinearity was not determined to exist.

Table 1 also presents the descriptive statistics for the study variables for the combined sample, as well as separately for the middle school and high school athletes. To determine whether the 2 groups of athletes differed on the study variables, a MANOVA was conducted. The dependent variables included the athletes’ self-perceptions of competence and the 4 reflected appraisals. Results revealed a non-significant overall effect, Wilks’ $\lambda = .98; F (5, 148) = 0.64, p < .67$, indicating that the middle school and high school athletes do not differ on their self-perceptions of competence or on their perceptions of how their fathers, mothers, coaches, or teammates evaluate their ability in sport.

As a way to describe whether the combined group of athletes perceived differences in how the various significant others evaluated their ability, a series of paired t-tests were conducted. Specifically, comparisons among the reflected
<table>
<thead>
<tr>
<th></th>
<th>Self-perceptions of competence</th>
<th>Reflected appraisals of fathers</th>
<th>Reflected appraisals of mothers</th>
<th>Reflected appraisals of coaches</th>
<th>Reflected appraisals of teammates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-perceptions of competence</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflected appraisals of fathers</td>
<td>.47</td>
<td>.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflected appraisals of mothers</td>
<td>.55</td>
<td>.59</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflected appraisals of coaches</td>
<td>.67</td>
<td>.38</td>
<td>.46</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>Reflected appraisals of teammates</td>
<td>.74</td>
<td>.41</td>
<td>.44</td>
<td>.66</td>
<td>.86</td>
</tr>
<tr>
<td>Mean (SD) for combined sample</td>
<td>3.83 (.50)</td>
<td>4.26 (.67)</td>
<td>4.39 (.60)</td>
<td>3.90 (.64)</td>
<td>3.85 (.63)</td>
</tr>
<tr>
<td>Mean (SD) for middle school athletes</td>
<td>3.81 (.48)</td>
<td>4.34 (.59)</td>
<td>4.40 (.58)</td>
<td>3.91 (.61)</td>
<td>3.82 (.61)</td>
</tr>
<tr>
<td>Mean (SD) for high school athletes</td>
<td>3.84 (.52)</td>
<td>4.21 (.72)</td>
<td>4.38 (.62)</td>
<td>3.89 (.66)</td>
<td>3.87 (.65)</td>
</tr>
</tbody>
</table>

*Note.* Alpha coefficients for the combined sample (N = 154) are presented along the diagonal. Correlations among study variables for the combined sample are presented in the lower diagonal. All correlations are significant at $p < .01$. 
The Influence of Reflected Appraisals

appraisals of fathers, mothers, coaches, and teammates were performed. Given the number of comparisons, a Bonferroni correction was used and the significance level was set at \( p < .008 \). Results from these comparisons are presented in Table 2. Results revealed that the athletes perceived that their coaches and teammates did not think they were as good (i.e., were less positive about their ability) in comparison to the athletes’ parents, especially their mothers. Using procedures outlined by Thomas, Salazar, and Landers (31), the calculated effect sizes of these differences ranged from small to large (see Table 2).

Main Analyses

**Purpose 1: Relative effects of reflected appraisals.** The first purpose of the study was to determine whether the reflected appraisals of various significant others are predictive of athletes’ self-perceptions of competence, and if so, are there differences in the relative influence of the significant others. A multiple regression analysis was used to examine whether the reflected appraisals were predictive of self-perceptions of competence. The criterion variable was the athletes’ self-perceptions of competence and the predictor variables were the reflected appraisals of fathers, mothers, coaches, and teammates. Results revealed that the reflected appraisals significantly predicted the athletes’ self-perceptions of competence, \( F(4, 149) = 68.87, p < .01, R^2 = .65 \). As seen in Table 3, the regression coefficients indicated that all of the reflected appraisals were significant predictors of self-perceptions of competence, with the exception of the reflected appraisals of fathers. Table 3 also presents the zero-order \((r)\), semipartial \((sr)\), and squared semipartial correlations \((sr^2)\) for the 4 reflected appraisals. Based on squared semipartial correlations, the largest amount of unique variance in the athletes’ self-perceptions of competence was explained by the reflected appraisals of teammates, followed by coaches, mothers, and fathers, respectively. These results also indicate that a substantial amount of the variance explained in the athletes’ self-perceptions of competence (i.e., 26%) was a result of the shared component of the reflected appraisals of fathers, mothers, coaches, and teammates.

### Table 2  Mean Differences Among the Various Reflected Appraisals

<table>
<thead>
<tr>
<th>Comparison of reflected appraisal (means)</th>
<th>Mean difference</th>
<th>( t )</th>
<th>( p &lt; )</th>
<th>( ES )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father vs. mother (4.26 vs. 4.39)</td>
<td>-.13</td>
<td>-2.70</td>
<td>.008</td>
<td>-.20(^a)</td>
</tr>
<tr>
<td>Father vs. coach (4.26 vs. 3.90)</td>
<td>.36</td>
<td>6.11</td>
<td>.001</td>
<td>.55(^b)</td>
</tr>
<tr>
<td>Father vs. teammates (4.26 vs. 3.85)</td>
<td>.41</td>
<td>7.27</td>
<td>.001</td>
<td>.64(^b)</td>
</tr>
<tr>
<td>Mother vs. coach (4.39 vs. 3.90)</td>
<td>.49</td>
<td>9.32</td>
<td>.001</td>
<td>.78(^c)</td>
</tr>
<tr>
<td>Mother vs. teammates (4.39 vs. 3.85)</td>
<td>.54</td>
<td>10.27</td>
<td>.001</td>
<td>.87(^c)</td>
</tr>
<tr>
<td>Coach vs. teammates (3.90 vs. 3.85)</td>
<td>.05</td>
<td>1.27</td>
<td>.205</td>
<td>.09(^a)</td>
</tr>
</tbody>
</table>

*Note. Significance level set at \( p < .008 \). \(^a\)Small Effect Size \((ES)\). \(^b\)Moderate Effect Size. \(^c\)Large Effect Size.*
Table 3  Summary of Regression Analysis Predicting Self-Perceptions of Competence

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Regression coefficients</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized (standard error)</td>
<td>Standardized</td>
</tr>
<tr>
<td>Constant</td>
<td>.72 (.20)</td>
<td>—</td>
</tr>
<tr>
<td>Reflected appraisal of fathers</td>
<td>.06 (.05)</td>
<td>.08</td>
</tr>
<tr>
<td>Reflected appraisal of mothers</td>
<td>.16 (.05)</td>
<td>.19</td>
</tr>
<tr>
<td>Reflected appraisal of coaches</td>
<td>.19 (.05)</td>
<td>.24</td>
</tr>
<tr>
<td>Reflected appraisal of teammates</td>
<td>.37 (.05)</td>
<td>.47</td>
</tr>
</tbody>
</table>

*Note.* Overall regression results, $F (4, 149) = 68.87, p < .01, R^2 = .65.$
Purpose 2: Age-related differences in the pattern of relationships. Structural equation modeling was then used to determine whether there were age-related differences in relative influence of these reflected appraisals on the athletes’ self-perceptions of competence. This involved comparing whether a regression equation that constrained each of the parameters to be equal across the middle school and high school athletes, fit the data as well as a model that allow these regression parameters to be freely estimated in each group (6). Results revealed that constraining the parameters did not significantly decrease the fit of the model relative to a freely estimated model ($\Delta \chi^2 = 12.44, p < .053$); thus indicating that the pattern of relationships was the same for middle school and high school athletes.

Discussion

The goal of this study was to examine the reflected appraisals process in middle school and high school athletes. The first purpose was to test whether the reflected appraisals of mothers, fathers, coaches, and teammates predicted athletes’ self-perceptions of competence, and, if so, whether there were differences in the relative influence of these significant others. Consistent with predictions, results from the regression analysis revealed that there was a strong relationship between the reflected appraisals and self-perceptions of competence. Interestingly, however, not all of the reflected appraisals were significant predictors of the athletes’ self-perceptions.

Despite the fact that the correlation between the reflected appraisals of fathers and the athletes’ self-perceptions of competence was significant ($r = .47$), fathers were found to be a non-significant predictor when considered along side the other three reflected appraisals. This was particularly unexpected given that it has been suggested that fathers play the major role in children’s socialization into sport and physical activity (17). While fathers might be the parent responsible for a child’s initial involvement, perhaps it is the same-sex parent, which for this sample of athletes is the mother, has a stronger influence on the athletes once they begin participation. Given the lack of research examining the influence of both parents, no definitive explanation can be provided. Future research should focus on understanding how mothers and fathers influence their children’s psychological development.

Results clearly revealed that those significant others directly involved in the athletes’ sport had the largest impact on the athletes’ self-perceptions of competence. Specifically, the reflected appraisals of coaches and teammates (i.e., sport-others) were more strongly related to the athletes’ self-perceptions of competence in comparison to the reflected appraisals of parents, especially fathers. The relatively strong influence of the reflected appraisals of sport-others seems reasonable for a number of reasons. First, athletes are likely to spend more time interacting with coaches and teammates in the sport setting relative to their parents. Further, coaches and teammates may possess more knowledge about the sport and what characteristics make up a competent performer. Perhaps the degree of interpersonal interaction and/or the level of expertise of the significant other influence the probability that an athlete will internalize the reflected appraisals of different people.

Another possibility is that athletes may believe that certain significant others are more truthful or genuine when communicating their evaluations. While people in general tend not to communicate information or do things that cause
shame or embarrassment (see 16), athletes may conclude that their parents are “biased,” and they are particularly unlikely to say or do things that would make them feel bad or feel incompetent. This biased perception, in turn, might result in the athlete discounting their parents’ appraisal to a certain extent. In contrast, certain individuals, like coaches and teammates, are more likely to communicate their actual appraisals of others (14). For instance, a coach’s job is to provide feedback and instruction to athletes, decide who is going to play, how much playing time each athlete receives, and so on. Each of these decisions may provide valuable cues to the athlete about how competent the coach feels he or she is. It is quite possible that coaches, and teammates who are also likely to provide substantial information about the player’s ability, will offer more genuine appraisals of others’ ability, whether positive or negative, given the nature of the social relationships and roles. While athletes may not want to hear negative things about themselves and their competence, perhaps they are more likely to internalize the beliefs when they feel that the appraisals are more credible. The fact that the athletes reported that their parents believed they were more capable than coaches and teammates felt they were, yet the reflected appraisals of the parents demonstrated weaker relationships with the athletes’ self-perceptions of competence lends some, albeit indirect, support for this notion.

While the reflected appraisal of sport-others were more strongly related to the middle school and high school athletes’ self-perceptions of competence relative to parents, the reflected appraisals of teammates was found to be particularly important. In fact, the squared semi-partial correlations indicated that the reflected appraisal of teammates uniquely explained 25% of the variance in the athletes’ self-perceptions of competence, which was more than the three other significant others combined. The importance of peers in the lives of children and particularly adolescents has been well documented in psychology (28, 33). Although limited, research in the physical domain has also highlighted the critical role of peers (4, 5). For instance, affiliation-reasons (e.g., meeting new people, being with friends) have been found to be a primary motive for youth sport and physical activity participation (32), peer support and companionship have been linked to adolescents’ affect and motivation toward physical activity (10), and peer relationships (i.e., friendships and peer acceptance) have been found to influence adolescents’ physical self-worth, affect, and motivation toward physical activity (30). Further, peer comparison and peer evaluation have been identified as critical sources of competence information for children and adolescents (19, 21). Given the amount of time children and adolescents spend interacting with their peers in and out of the sport context, there are sure to be numerous opportunities for athletes to determine how their peers evaluate their ability in sport, and given the importance placed on these significant others, these reflected appraisals are likely to be internalized by the athlete. These results highlight the need for increased research on the role of peers in the lives of athletes (4, 5).

The second major purpose of this study was to examine whether there were age-related differences in the pattern of relationships among the reflected appraisals and the athletes’ self-perceptions of competence. Based on the developmental trends in the use of selected sources of competence information (19, 21), the relatively strong influence of peers was expected for the older athletes, but not for the younger athletes who were predicted to show a stronger relationship with their parents. Nevertheless, structural equation modeling revealed no differences in the
pattern of relationships between the middle school and high school athletes. Upon closer examination, however, these results might have been expected. Specifically, the research on sources of competence information has found that the increasing importance of peers as a source of competence information relative to parents occurs around the age of 11 (22, 23). The average age of the middle school athletes in the current study was 12 – .89 years. Thus, it is quite possible that this group of athletes had already made the transition from a reliance on parents as a source of competence information to peers. Future studies should attempt to sample younger athletes to see if the predicted developmental differences occur. Despite this potential limitation, the results of this study contribute to the knowledge regarding the development of athletes’ self-perceptions of competence by indicating that there are differences in the relative influence of various significant others.

While the results of the study demonstrate that there are differences in the relative influence of various significant others on athletes’ self-perceptions of sport competence, it should also be noted that a large portion of the variance explained in the athletes’ self-perceptions of sport competence was shared among the four reflected appraisals. This overlap between the reflected appraisals was also apparent in the significant and positive correlations among the four reflected appraisals. The overlap among the various reflected appraisals has been explained by Felson (13, 14) as the normative effect. Specifically, Felson argues that individuals are better able to generate an idea of how the “generalized other” evaluates him or her in comparison to the evaluation of specific individuals (also see 9). That is, consistent with the ideas of Mead (26), individuals are better able to perceive the attitudes of a group of individuals versus the attitude of each specific significant other. Consequently, athletes may develop a general sense of how others view their ability, which is then internalized and integrated into their self-perceptions. While the current results provide some support for this notion, there were meaningful differences in the relative influence of the reflected appraisals, and thus individuals must differentiate the beliefs of specific others at least to a certain degree.

In summary, this study adds to our understanding of the development of athletes’ self-perceptions of competence and the reflected appraisal process, however, there are a variety of limitations that should be noted. For instance, this study examined the link between reflected appraisals and self-appraisal, but ignored the actual appraisals of the significant others. Others have examined the relationship between actual appraisals and self-appraisals (e.g., 8, 25), but failed to consider the reflected appraisals. Our understanding will be enhanced through testing all three components of the reflected appraisal process simultaneously.

A second issue involves the correlational nature of the study. The reflected appraisal process suggests that an individual determines what others think of him or her and then internalize these appraisals. Felson and others (e.g., 14, 24), however, have suggested that individuals may project their own self-perceptions onto others. In other words, athletes who think they are competent may infer that others also think they are competent. The possibility of projection accounting for the relationship among the reflected appraisals and the athletes’ self-perceptions of competence cannot be ruled out given this study’s design. While Felson (14) has acknowledged the difficulty in adequately testing reciprocal effects, a few studies have found that projection does occur, especially under certain circumstances such as when feedback about one’s ability is ambiguous (13, 24). Consequently, it is important for future research to determine the extent that projection plays in the
reflected appraisal process with athletes (14, 24).

Finally, this study examined a limited number of significant others. While the inclusion of the mothers, fathers, coaches, and teammates was clearly a step in the right direction, there are still many other people in the lives of athletes who may be influential. For example, extended family (e.g., uncles, aunts, grandparents), siblings, teachers, and non-sport peers may all contribute to the development of athletes’ self-perceptions. Hopefully, future research will expand the list of significant others studied, as well as determine the differential effects of these individuals on the experiences and development of children and adolescents.

In summary, this study has added to the literature by testing how reflected appraisals are related to middle school and high school athletes’ self-perceptions of competence. Consistent with both theory and research on the reflective appraisal process (14, 18, 29), results indicated that the reflected appraisals were related to athletes’ self-perceptions of competence, with teammates demonstrating a particularly strong relationship for both middle school and high school athletes. Understanding the development of self-perceptions will continue to be an important research goal given the many achievement-related outcomes (e.g., motivated behavior, performance, affective responses) associated with athletes’ self-perceptions (5, 11, 32).

References


**Notes**

1None of the athletes left any of the items blank, suggesting that all the athletes had at least some contact with each of the four significant others targeted.

2A variety of alternative models were tested and compared to the 4-factor model. For instance, a 2 factor model representing the reflected appraisals of parents (i.e., mother and father) and sport-others (i.e., coach and teammate) was tested, as well as a model specifying a single higher order factor representing the reflected appraisal of all four significant others. Results from these model comparisons suggest that the 4-factor model provided the best fit to the data.

3Alpha coefficients were also computed on the study variable separately for the middle school and high school athletes. Results indicated that all measures were reliable in each of these groups.

4The correlations among the study variables were examined separately for the middle school and high school athletes. The pattern of relationships was very similar across the groups, and multicollinearity was not found to exist within either group. The correlation matrices for each group are available from the author upon request.

5It was believed that the sport camps would include a large number of younger children, however, this turned out not to be the case due to cancellations of specific sessions. While the age grouping was not ideal, it was reasonable to test for differences between the middle school and high school athletes given the changes in competitive level, training requirements, and so on that generally occurs with the transition to high school sport.