

## The Correlation of Recognition and Non-recognition Experiences in Physical Education with Children's Self-Concept – Are There Really Gender Differences?

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### Abstract:

There is little research about physical education teachers' influence of students' self-development, but even less research about another important self-concept source: the other students being the peer group. However, research shows that peers are one of the most important socialization agents in childhood and youth and that sport competence is used as an important criterion for being recognized by other peers.

Therefore, it is important to examine the link between non-recognition experiences in physical education in the sense of negative peer feedback and self-indices. Furthermore, it is important to examine how children individually handle non-recognition experiences to identify potential pedagogical interventions.

A mixed method study combining video-records, video stimulated recall interviews with a questionnaire, and PE teacher ratings about students' sport competence was conducted. The data set includes  $N = 144$  students (mean age: 11.75 years;  $n = 67$  boys;  $n = 77$  girls). From these 144 students,  $n = 20$  boys and  $n = 20$  girls were selected for video stimulated recall interviews which aimed at identifying students' handling strategies with non-recognition experiences in PE.

To avoid gender reification, "sport competence," which is more relevant for (non-)recognition experiences in PE rather than "sex" was chosen as the differentiating category to identify differences between the students. For sportive children there are significant negative correlations of non-recognition experiences in PE with most self-indices and significant positive correlations of recognition experiences with all self-indices. However, there is no significant correlation between the self-indices of less sportive children and their non-recognition as well as their recognition experiences. The interviews showed that non-recognition experiences are self-relevant for sportive children whereas less sportive children use defense strategies to handle non-recognition experiences in a non-self-threatening way. Finally, the study shows that for the self-indices of less sportive students, PE is no (more) a relevant context.

**Keywords:** Physical Education, Self-concept, Peer group, Gender

### Introduction

Influencing the development of a positive self is one of the goals of the overall Physical Education (PE) syllabus in Europe (van Assche, Vanden Auweele, Metlushko, & Rzewnicki 1999). Meanwhile, has been proven that to enhance pupils' selves, teachers must know communication skills that may contribute to a positive self-image (Perrin-Wallqvist & Carlsson, 2011). Research also indicates negative consequences on self-indices if a positive interaction between PE teachers and their pupils is not established (see, among others, Whitehead & Corbin, 1997). However, less is known about the impact of peer interactions in PE for the development of self-indices, such as self-concept, in different subareas (e.g., academic, social, physical), self-esteem, and self-efficacy. According to Marsh, Gerlach, Trautwein, Lüdtke, and Brettschneider (2007), physical education is ideally suited for reciprocal effects among peers because feedback about sport performance comes largely from social comparison with the performance of peers. Children have much more flexibility to commentate on performances in PE lessons than in other traditional school subjects because the PE performance is always in the public sphere and may well elicit direct feedback in the form of recognition or non-recognition.

By a complex methodological approach, it was aimed to examine the relationship between the forms of (non-)recognition that children experience in PE classes and their self-indices, and the way children handle these non-recognition experiences. As self-concept research (re-)produces continuously gender-differentiated results, the superior aim of this study is to critically question the continuously reproduced gender differences in self-concept research and to look for further differentiating categories that seem to be more theoretically, and even empirically more logical. Data are based on a large mixed-method study combining video records, video stimulated recall interviews with PE teachers' rating about their students' sport competence and a cross-sectional questionnaire.

### Theoretical Frame

Recent models of the self-concept conceptualize the self as multidimensional and hierarchical (see, among others, Marsh, 1987/1990; Marsh & Shavelson, 1985). “*Self-concept*, broadly defined, is a person’s perceptions [sic] of him- or herself. These perceptions are formed through experience with and interpretations of one’s environment. They are influenced especially by evaluations by significant others, reinforcements, and attributions for one’s own behavior” (Marsh & Shavelson, 1985, p. 107). Harter (1982) perceived self-concept as a perception of competence in different subareas such as children do not equally feel competent in every skill domain. Therefore, Harter (1982) differentiated *cognitive* competence, with an emphasis on academic performance at school, *social* competence, vis-a-vis one’s peers, and *physical* competence, with a focus on sports.

“General self-concept,” “self-esteem,” and “self-worth” are terms that are frequently used interchangeably in literature. In this paper, the term “self-esteem” is used according to Marsh (1990), who supports the operationalization of self-esteem as an independent factor of the other self-concept indices, such as academic, social and physical. In this sense, self-esteem is conceptualized as an overall sense of well-being, such as “I am a good person” and “I like me as I am.”

The conception of self-concept is related to the conception of self-efficacy but is not identical to it. Perceived self-efficacy is defined as the self-perceptions of one’s skills and capabilities to deal with prospective (difficult) situations (Bandura, 1986). Altogether, self-concept and its subareas, self-esteem, and self-efficacy form the self. Self-development happens in a social context and in dialogues through feedback from others. Feedback can be conceptualized as acts of recognition or non-recognition. The recognition and the non-recognition of a person “comes about only with the help of media that, by virtue of their symbiotic structure, are modelled on the expressive bodily gestures with which human beings confirm their social validity to one another” (Honneth & Margalit, 2001, p. 119-120). Finally, recognition and non-recognition can influence self-development. In this sense, feedback functions as a mirror: like others react and behave towards the individual, the individual might perceive itself and behave in a certain manner (Perrin-Wallqvist & Carlsson, 2011).

### State of Research

The state of research gives an overview of studies that focus on the importance of (non-)recognition experiences for self-development, or on the influence of physical education on self-development.

#### *Acceptance or Rejection in the Peer Group and Self-development*

Experiences of rejection, partly combined with an outsider position in the peer group, correlate negatively with self-concept, self-esteem, and self-efficacy (cf. review of Osterman, 2000). Low self-esteem is linked to problems, such as life dissatisfaction, physical health problems, depression, substance abuse, and suicidal and aggressive behavior (Donnelly, Young, Pearson, Penhollow, & Hernandez, 2008). Adolescents with positive self-esteem typically demonstrate a high degree of autonomy, self-confidence, self-respect, and satisfaction with themselves (Boden, Fergusson, & Horwood, 2008).

The negative outcomes of peer rejection in the long term are also proven. For instance, difficult peer relationships in childhood are associated with problematic peer relationships in youth and adulthood (see, among others, Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987). Being rejected by peers in childhood and youth increases the probability of psychological problems and illness 11 to 13 years later by approximately 30 times (Cowen, Pedersen, Babigian, Izzo, & Trost, 1973).

Not being included in a social group means, at the same time, not having the possibility to develop, test, and enlarge social competence: children who are rejected by their peers behave less socially and cooperatively than popular children (see, among others, Walker, 2004). Children who are disliked by their peers exhibit not only social skills deficits but are also more aggressive and withdrawn; in addition, they report increased loneliness and social dissatisfaction, and experience problems with school maladjustment and later disorders (see, among others, Parker & Asher, 1987).

Children who feel accepted and included have a more positive self-concept and a more positive view of others; they behave more positively and openly towards other children than do children who feel excluded and rejected (Baumeister & Leary, 1995). Research have shown that being accepted among peers is significantly correlated with sport competence. This correlation is regularly proven for boys; for girls the results are contradictory (see overview, Grimminger, 2013).

Finally, being rejected and excluded in childhood and youth has negative social, psychological, and physical consequences at various ages and in multiple settings.

#### *Experiences in Physical Education and Self-development*

Due to different uses of terms and different uses of measurements, it is difficult to structure the state of research about self-development and sports respectively around physical education. To reduce the complexity, the following overview of studies focuses on PE classes and their impact on self-development.

Regarding physical education and its impact on self-development, there are only few studies on this subject. One qualitative study focuses on the importance of PE teachers’ feedback on self-image and several studies examining particular programs and their effect on students’ self-concept. Perrin-Wallqvist and Carlsson (2011)

in their interview study with six students found that the PE teacher’s feedback, as well as their peers’ feedback, is of significance in positively or negatively developing students’ self-image. Studies that examined the effect of particular self-enhancement programs in physical education (Lai et al., 2009; Goñi & Zulaika, 2000; Marsh & Peart, 1988; Schempp, Cheffers, & Zaichowsky, 1983) showed positive effects on self-indices, especially on the concept of physical self, among the students in the experimental group. The findings suggest that physical activity interventions that target autonomous, decision-making, and intrinsic motives in physical activity are likely to enhance young people’s (physical) self-concept.

**Developing Research Questions**

As peers may be an important source of feedback for self-development and as a positive self-concept mediates a child’s involvement in physical activity or physical education (Bowker, 2006), it is important to examine the link between non-recognition experiences in physical education in the sense of negative peer feedback and self-indices. Furthermore, it is important to examine how children handle individually non-recognition experiences to identify potential pedagogical interventions. Therefore, the study had the following research questions:

1. What is the correlation between (non-)recognition experiences in physical education and self-indices, such as physical, academic, and social self-concept, self-esteem, and self-efficacy?
2. How do children handle non-recognition experiences in PE?

**Methodological Approach**

The methodological approach of this study<sup>1</sup> can be described as mixed-method (Creswell, Plano, Clark, Gutmann, & Hanson, 2003) because qualitative and quantitative methods are combined to examine different aspects of the presented research questions.

Initially, through video-records of 33 PE lessons in six different classes, several non-recognition and recognition situations among peers were identified. Boys (n=20) and girls (n=20) from the videotaped classes were selected for video stimulated recall interviews. The narrative stimuli were video sequences in which the interviewed student experienced, in the researcher’s view, non-recognition. Interview process was highly structured and always followed the same rules: the researcher played a video sequence to the student and asked her/him to describe in her/his own words what had happened in that scene. All the interviews were tape-recorded. The aim of these interviews was to reconstruct students’ interpretations of the selected situations for comparison with the researcher’s interpretations.

This qualitative study part was combined with PE teacher’s ratings about students’ sport competence and with a cross-sectional questionnaire completed by the videotaped students. For the rating, PE teachers were asked to rate every student’s sport competence using a four-point scale (4=highly skilled – 3=rather highly skilled – 2=rather poorly skilled – 1=poorly skilled). The researcher decided not to include the sport grades because most sport grades include not only sport motor abilities but also social competence. The student questionnaire covered socio-biographical aspects such as gender, migration background and socio-economic background, self-indices and experiences of non-recognition and recognition in PE. Based on the identified (non-)recognition situations in the video-study, the items of (non-)recognition were formulated for the questionnaire. Children could answer on a four-point scale (Table 1).

**Table 1**  
*Items of Non-Recognition and Recognition in Physical Education*

In physical education classes, I generally experience that...	often	sometimes	rarely	never
... my male classmates praise me.	O	O	O	O
... my female classmates praise me.	O	O	O	O
... I am selected last in team selection processes.	O	O	O	O
... my male classmates laugh at me.	O	O	O	O
... my female classmates laugh at me.	O	O	O	O
... I instantly have a partner when we do a partner exercise.	O	O	O	O
... the others accept me as I am.	O	O	O	O

All the Students (N = 144) who participated in the video-study (mean age: 11.75 years; SD: ±1.21 years; n = 67 boys; n = 77 girls) filled in the questionnaire.

Students’ self-concept was measured via self-report measures; for this study, a German adapted version of Harter’s Self-Perception Profile for Children (Brettschneider & Gerlach, 2004) was used. The items tap the three

<sup>1</sup> The study was approved by local Ethics Committee.

different self-concept subscales: academic, social, and physical, as well as the subscale of self-esteem. To measure self-efficacy, the General Self-efficacy Questionnaire developed by Schwarzer and Jerusalem (2001) was used.

**Results**

For reasons of transparency, before presenting the results regarding the relationship of (non-)recognition experiences in PE with self-indices (quantitative section of the study) and then showing how children handle non-recognition (qualitative section of the study), the factor analysis of the non-recognition and recognition items as well as factor analysis for the self-indices are presented. All analyses were calculated with IBM® SPSS® Statistics Version 21. The significance level was set to  $\alpha = 0.05$ .

**Test of data validity**

A principal component factor analysis with varimax rotation to the single items of non-recognition and recognition identified two clearly separate content validity factors (Table 2). Internal consistency was measured by Cronbach’s alpha. The scale of recognition, with a value of  $\alpha = .53$ , had poor in internal consistency whereas the scale of non-recognition had acceptable internal consistency at  $\alpha = .72$ .

**Table 2**

*Factor Loadings of Recognition and Non-recognition Items*

Item	Recognition	Non-recognition
... my male classmates praise me.	<b>.75</b>	-.14
... my female classmates praise me.	<b>.75</b>	.00
... I instantly have a partner when we do a partner exercise.	<b>.58</b>	-.35
... I am selected last in team selection processes.	-.18	<b>.57</b>
... my male classmates laugh at me.	-.16	<b>.75</b>
... my female classmates laugh at me.	-.11	<b>.84</b>
... the others accept me as I am.	.06	<b>-.74</b>

Note. Factor loadings > .40 are in boldface.

A principal component analysis with varimax rotation for the self-indices identified five clearly different content validity factors that correspond to Harter’s Self-Perception Profile Scales and the General Self-Efficacy Scale of Schwarzer and Jerusalem (Table 3). The internal consistency of the different self-indices scales is acceptable or even good (academic self-concept  $\alpha = .70$ ; social self-concept  $\alpha = .72$ ; physical self-concept  $\alpha = .82$ ; self-esteem  $\alpha = .87$ ; self-efficacy  $\alpha = .82$ ).

**Table 3**

*Factor Loadings of Self-Indices Items*

factor 1: academic self-concept		factor 2: social self-concept		factor 3: physical self-concept		factor 4: self-esteem		factor 5: self-efficacy	
Item	loading	Item	loading	Item	loading	Item	loading	Item	loading
I often forget things that I have learned at school.	-.475	I am afraid that my classmates do not like me.	.759	I am very good at sports.	.723	There are reasons to be proud of me.	.688	If someone opposes me, I can find the means and ways to get what I want.	.525
I can do my homework quickly.	.375	I find it difficult to find friends in my class.	.536	I learn sports quicker than others my	.539	All in all, I am happy with me.	.731	I can always manage to solve difficult problems if I try hard enough.	.540
I am very good at school.	.658	It is not easy for my classmates to like me.	.697	I learn new sport exercises very quickly.	.735	I like me as I am.	.592	It is easy for me to stick to my aims and accomplish my goals.	.430
I am as clever as others my age.	.454	I often spend time with my classmates.	-.196	I am as good at sports as others my age.	.626	I am okay.	.686	I am confident that I can deal efficiently with unexpected events.	.567
		I think that most of my classmates like me.	-.223	I am just not good at sports.	-.727	I do not think a lot of me.	-.547	Thanks to my resourcefulness, I know how to handle unforeseen situations.	.255

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I worry about what my classmates may say about me.	.608	I can remain calm when facing difficulties because I can rely on my coping abilities.	.620
		I can usually handle whatever comes my way.	.570
		If I am in trouble, I can usually think of a solution.	.728
		When I am confronted with a problem, I can usually find several	.473
		I can solve most problems if I invest the necessary effort.	.678

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***The correlation of (non-)recognition experiences with self-indices***

For the correlation analysis, the students' self-reported experiences in the questionnaire were correlated with the self-indices.

A Pearson's correlation shows that non-recognition experiences in PE are significantly negatively associated with social self-concept ( $r = -.20; p \leq .05$ ), physical self-concept ( $r = -.35; p \leq .01$ ), and self-esteem ( $r = -.19; p \leq .05$ ). A Pearson's correlation for the recognition experiences in PE yields significant positive correlations with social self-concept ( $r = .34; p \leq .01$ ), physical self-concept ( $r = .31; p \leq .01$ ), self-esteem ( $r = .21; p \leq .05$ ), and self-efficacy ( $r = .37; p \leq .01$ ). Only academic self-concept does not show any significant positive association with recognition experiences in PE.

A tradition in self-concept research comes in the next step of analysis: calculating the correlations of (non-)recognition experiences with self-indices in gender-separated samples. Many studies on self-concept or self-esteem reveal gender differences in favor for men/boys (see reviews: Jackson, Hodge, & Ingram, 1994; Kling, Hyde, Showers, & Buswell, 1999). The studies often conclude that these gender differences exist due to different socialization experiences of boys and girls, or are consistent with gender stereotypes (Stake, 1992). Doing a gender-differentiated analysis for this study reveals gender differences, as well. A Pearson's correlation for the relationship between non-recognition experiences and self-indices among boys shows a highly significant negative correlation between non-recognition processes and physical self-concept ( $r = -.48; p \leq .01$ ); whereas among girls, there is no significant correlation between any of the tested constructs. For boys, a Pearson's correlation for the relationship between recognition experiences in PE and self-indices yields highly significant correlations between recognition experiences in PE and the social ( $r = .33; p \leq .01$ ) and physical self-concept ( $r = .38; p \leq .01$ ), as well as self-efficacy ( $r = .35; p \leq .01$ ). Among girls, all the self-indices have a highly positive significant correlation with recognition experiences in PE (academic:  $r = .35$ ; social:  $r = .37$ ; physical:  $r = .39$ ; self-esteem:  $r = .26$ ; self-efficacy:  $r = .40$ ; for all  $p \leq .01$ ). With regard to the non-significance of non-recognition experiences for self-indices among girls, this result seems surprising and has to be questioned because of two further statistical analyses. First, a t-test shows that there are no significant mean differences in self-indices between boys and girls. Thus, the continuously reported gender differences in self-indices are not valid for this study. Second, a t-test yields that girls ( $n=64$ ) more often report recognition experiences in PE than boys ( $n=71$ ) ( $\text{mean}_{\text{girls}} = 2.03 (\pm .32)$  vs.  $\text{mean}_{\text{boys}} = 1.79 (\pm .50)$ ;  $t = -2.18$ ;  $\text{eta}^2 = .05$ ). If there are really gender differences in the importance of non-recognition experiences in PE, this would mean that either girls do not experience non-recognition in PE – a conclusion that is disproved by the video data, or that they experience the situations not as non-recognition – that is falsified by the video stimulated interviews. The only explanation could be that these non-recognition experiences in PE are not self-relevant for girls because PE is not a self-relevant context for them – however, this is contradictory to the result that recognition experiences in PE have a significant impact on girls' self-indices. So, PE is a self-relevant context for them. Therefore, the statistical analysis continued with sport competence as differentiating categories that seem to be more theoretically, or even empirically more logical.

***Sport competence as differentiating category***

A t-test shows that less sportive children experience ( $n = 48$ ) significantly more non-recognition in PE than sportive children ( $n = 66$ ) ( $\text{mean}_{\text{less sportive}} = 1.30 (\pm .50)$  vs.  $\text{mean}_{\text{sportive}} = 1.02 (\pm .35)$ ;  $t = -3.7$ ;  $\text{eta}^2 = .10, p \leq .01$ ). The t-test for recognition experiences misses with  $p = .06$  the set significance level ( $\text{mean}_{\text{less sportive}} = 1.70 (\pm .53)$  vs.  $\text{mean}_{\text{sportive}} = 1.91 (\pm .67)$ ;  $t = 1.87$ ;  $\text{eta}^2 = .03, p = .06$ ). A Pearson's chi-squared test shows any significant gender distribution effect on the categories "sportive" and "less sportive." Based on the teacher ratings, the breakdown of sportive for boy and girls is as follows: less sportive boys ( $n = 23$ ), less sportive girls ( $n = 29$ ), sportive boys ( $n = 25$ ), and sportive girls ( $n = 47$ ). These results prove that sport competence, rather than gender, seems to be the differentiating category.

Pearson's correlation of non-recognition experiences with self-indices among sportive children identifies significant negative associations of non-recognition experiences with social self-concept ( $r = -.30$ ;  $p \leq .01$ ), physical self-concept ( $r = -.43$ ;  $p \leq .01$ ), self-esteem ( $r = -.57$ ;  $p \leq .01$ ) and self-efficacy ( $r = -.31$ ;  $p \leq .05$ ). Recognition experiences in PE correlate among sportive children positively with all self-indices: social self-concept ( $r = .39$ ;  $p \leq .01$ ), physical self-concept ( $r = .33$ ;  $p \leq .05$ ), academic self-concept ( $r = .32$ ;  $p \leq .01$ ), as well as with self-esteem ( $r = .29$ ;  $p \leq .05$ ), and self-efficacy ( $r = .45$ ;  $p \leq .01$ ). A Pearson's correlation among less sportive children does not show any significant correlations of non-recognition experiences in PE with self-indices as well as no correlation of recognition experiences in PE with self-indices. These non-correlations can be explained by the video stimulated recall interviews with children that experience visibly non-recognition in PE.

#### *Different handling strategies with non-recognition*

For the analysis of the video stimulated recall interviews, the interview persons were blinded in "sportive" or "less sportive" to analyze the data independently of gender. This gender-blinding technique is a particular methodological decision to prevent gender bias and not to reify the binary system and thus contributing to its (re-)construction (Degele & Schirmer, 2004; Marshall & Young, 2009; Schultz & Hagemann-White, 1990). Due to this analysis strategy, different handling strategies with non-recognition in PE of sportive and less sportive children could be identified. In total, 20 interviews of less sportive children, and 20 interviews of sportive children were analyzed.

Sportive children admit that they have experienced non-recognition and they admit that this experience is subjectively relevant for their self-concept. In the interviews, they say for example: "When I am hit with the ball in football, I always think they don't like me and they don't want me to be in their class," or "When things like this happen in PE, I worry a lot about at home." For sportive students, PE is a subjectively relevant context for their self-development. They construct their self based on positive but also negative experiences in PE. Whereas for less sportive children neither recognition nor non-recognition experiences in PE have an impact on their self-development.

Less sportive children use different defense strategies and deny non-recognition experiences in PE even if they are obviously recorded by the videos. These children try to protect their self, which is a basic human need (Maslow, 1987). In total, ten different defense strategies could be identified. In the following section, this variety will be presented along with the student's words about the situations shown in the videos.

#### *Self-handicapping*

Self-handicapping is a process that was primarily identified among athletes who didn't perform well in a competition and who explained their failure with the fact that they didn't try hard enough. So, self-handicapping is defined as "the process of proactively avoiding threat to one's self-esteem via any action or choice of performance setting that enhances the opportunity to externalize failure and to internalize success" (Berglas & Jones, 1978, p. 406). Self-handicapping is often used if the failure is publicly visible (Chen et al., 2008; Maddison & Prapavassis, 2007) as it is mostly the case in PE. In the sense of Goffman (1967), the school class represents a social stage in which failure and non-recognition are publicly demonstrated. Therefore, self-handicapping strategies are used in situations where everybody can observe the non-recognition. For example, Robert (14 years old) is always the first to be caught in catching games and is never delivered by the others (e.g., games like bridge tag). In the video, it is clear that he tries to get the others' attention and that he wants to be delivered to play again. The others ignore him, so he is caught until the games stops. In the interview, Robert says: "I didn't want to play. I don't like these catching games. I am pretty glad that I am caught so early, so I can protect my reserves and energy for other games that I like."

#### *Giving up after "struggling"*

The strategy of giving up reflects that children have realized after "struggling" for their recognition (Honneth, 1995) that they cannot change their situation. In contrast to the self-handicapping strategy, this strategy does not varnish the situation. Children explain their behavior of withdraw after obviously struggling to be recognized. This can be seen in the case of Carol (14 years old). Like Robert, Carol is a girl that is mostly caught first and delivered rarely by the others in catching games. When being caught, Carol tries to get attention on her by calling the others by name to get delivered. When the others ignore Carol or when they deliver somebody else who was caught after Carol, she denounces this practice of injustice. But nevertheless after several attempts, she gives up. In the interview, she says: "When you realize, there will be nobody who delivers you, then you sit down and wait. But I don't care about that." Although, Carol admits that she would prefer being delivered by the others, she dissociates herself from the negative experience of being not delivered.

#### *Hoping*

Hoping, in contrast to self-handicapping and giving up, is a strategy to keep up wishes for the future. Children are convinced that there will come other times where they will decide about the others. This hope is expressed by Fiona (9 years old) who is always the last selected in team selection proceedings and who tried several time to be the one who selected the others but she never got the chance. In the interview, she says: "I will never give up. Probably, the next time it will be me to select the teams."

#### Reinterpreting

The strategy of reinterpreting the situation was also identified by Miethling and Krieger (2004) as a strategy to handle with situation of insecurity in PE – like being hurt and being laughed at by peers and/or teacher (double vulnerability). Reinterpreting the situation as not so severe helps the students to overcome the self-threatening experience and to protect him/herself. Fiona (9 years old) uses this strategy to show that always being the last to be chosen in team selection proceedings has an advantage. She says “When I am selected the last, I know to which team I will belong.”

#### Dissociating

Dissociating is used to deny the competition aspect that is sometimes part of PE. The children, who use this strategy, admit that PE is not so important for them and that is why for them, non-recognition experiences have no effect. For example, Finley (11 years old) fails several times as goal keeper in soccer, and his team members yell loudly at him. In the interview, he says: “I didn’t care about that because for me it was funny. For me it is not so important to win as it is for the others.” As such, dissociating oneself from the sense of the game – that is for the most children winning – means that one is not affected by being blamed.

#### Understanding

The strategy of understanding is a kind of legitimization of the experienced non-recognition. Understanding connotes that there are obvious reasons why one is rejected or experiences non-recognition. For instance, it facilitates the situation. This is shown when Ian (11 years old) has an explication for why he is always the one having no partner in situations when the students shall get into pairs. He says: “I can understand it because when the others have already a partner, they cannot leave him in the lurch. This would be even a sillier situation for him. I understand it: they have promised each other to do the exercise together. That’s stupid for me, but I understand it.”

#### Glorifying

The “glorifying mechanism” turns the person who causes the most humiliation into a best friend because, like the protection of the self, the “need to belong” (Baumeister & Leary, 1995) is also a basic human need. The belongingness hypothesis says “that human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (Baumeister & Leary, 1995, p. 497). It also states that if there aren’t any stable relationships, it is necessary to have at least the illusion of them – a suggestion that could be deducted from the interviews. Although Marian (12 years old) is continuously humiliated by one girl, in the interview this is what she says about that girl: “She is my best friend. She always helps me.”

#### Attributing closely, area-specific

Attributing the failure closely, area-specific, makes the experiences of non-recognition less self-threatening, so that it has no impact, for example, on the physical self-concept. Robert (14 years old) is laughed at loudly when doing rope skipping in PE. But to protect himself, he says: “I know that I am not good in rope skipping but therefore I am good in football.” By admitting that one has poor competence in a particular area but therefore having high competence in another subjectively much more important area makes the experienced non-recognition manageable. Being able to do rope skipping – a girls’ activity – could even be seen as threatening for one’s own masculinity (Gieß-Stüber, 1993).

#### Being self-sure

Being sure that one’s own decisions and behaviors are right and that the others are wrong helps to evaluate humiliations and insults as irrelevant. Finley (12 years old), who also interprets PE and winning as not so important, seeks fairness and therefore he does not cheat even if his team members would have expected him to. He withstood all kind of yelling when he was returning the ball to the other team in dodge ball because it was their turn. He says: “I know that if I had taken the ball, this would have been unfair for the others. But by returning the ball to the others, my team members yell at me. And I knew that they will yell at me. And nevertheless, I did it because in this moment I was sure that I have to be fair.”

#### Ignoring

Ignoring is closely linked to the strategy of being self-sure. Children do not escape from an obviously humiliating situation but rather, ignore the humiliation with which they are confronted. For example, there is a girls and a boys group that queues for the vaulting horse. As there are more children in the boys group, the girls have more often the possibility to do the exercise. Ian (12 years old) decides to change groups and queue in the girls group. However, all the girls obviously reject him and cry loudly and several times at him “Ian, go away!” or “We don’t want you to have in our group” or “Bye-bye, Ian!” But Ian does not withdraw because as he says in the interview: “I didn’t care about that. I just ignored it.” Ian maintained his interest – to practice as much as possible even if he is rejected socially by the girls.

### Discussion

The Pearson correlation coefficient test results suggest that non-recognition as well as recognition experiences in PE are significantly associated with several self-indices. Non-recognition experiences in PE correlate little to medial negative with social and physical self-concept, and with self-esteem. Recognition experiences in PE correlate positively with social and physical self-concept, with self-esteem and with self-efficacy. This means

with all self-indices except the academic self-concept. Nevertheless, it is not possible to say anything about the causal order of the constructs. Do children experience non-recognition or recognition in PE because of their lesser/higher self-indices, or do non-recognition experiences as well as recognition experiences in PE diminish respectively or enhance the concerned self-indices? Both directions are possible if we keep in mind that self-indices are developed through others' feedback and that other's self-indices are developed through our feedback; and that self-indices influence individual behavior. In that regard, Weiss and Duncan (1992) conclude that a child's being good and believing that he or she is good in sports is strongly related to being successful in peer relations and perceiving acceptance by his or her peer group due to the child's self-confident behavior in sports and in the peer group. Finally, physical education can be a salient setting for one child's evaluations regarding their own competence in sports and in peer-relations (Horn & Weiss, 1991). Following the authors, thus, an understanding of peer relations within the sport context is important from the perspective of continued physical activity, as well as children's psychological well-being and health.

Under this perspective, it is interesting that there are no significant correlation between non-recognition experiences in PE and self-indices among less sportive children. Physical education has no identity relevance for them, so much so that even recognition experiences don't have any impact on their self-indices either. However, among sportive children there are significant medium to high correlations of non-recognition experiences in PE with all self-indices, except the academic self-concept, and significant medium correlations of recognition experiences in PE with all self-indices. The video stimulated recall interviews show that experienced non-recognition in PE makes sportive children worry about and has an effect on their self, whereas less sportive children use different defense strategies to protect their self. Another explanation could be that less sportive children are used to (mostly over a long time) non-recognition experiences in PE and therefore to negative peer interactions (in PE), so much so that they do not expect anything else. Sandstrom and Cremer (2003) identified this mechanism among rejected girls who in contrast to popular girls may fail to encode cues of social disapproval in a realistic manner or otherwise fail to perceive negative feedback. Non-recognition experiences in PE become normal and therefore don't have any (more) impact on self-development. Therefore, the identified strategies can be structured in three different categories: 1) Not giving up/not being concerned: struggling, hoping, reinterpreting, dissociating, understanding, being self-assured, ignoring; 2) Misinterpreting reality: glorifying, self-handicapping; 3) Giving up. If non-recognition experiences do not have any (more) impact on self-development because PE is no (more) relevant a context for them, it is reasonable that recognition experiences do not have any (more) impact on self-development. Probably, dissociating from the competitive aspect of sports – that is mostly represented in the video records – is a self-protecting, healthy solution for less sportive children. If PE is only based on competitive elements and social comparison, where successful students are rewarded and weaker students may be (or feel) rejected or isolated by their peers (Ridgers, Fazey, & Fairclough, 2007), it is a necessary consequence to avoid physical education and probably physical activity in general.

### Conclusion

This study could prove that experiences of recognition and non-recognition are relevant not only for the context-specific physical self-concept but also for other self-areas, such as the social self-concept and more generally constructs like self-esteem and self-efficacy. Therefore, peers' direct feedback should not be underestimated even if PE teachers' feedback has an impact on students' self-development as well. But as less sportive children use defense strategies to handle situations in a self-protecting manner, e.g., non-recognition experiences in PE, they withdraw (cognitively) from PE so much that even recognition experiences in PE are for them, no longer self-relevant. For further research, it would be interesting if and how the defense strategies develop over time. As the presented study is cross-sectional, the interpretations of the quantitative correlations are also limited.

The empirical research findings suggest that it is possible that less sportive children after dissociating from the PE context avoid physical activity in general. This leads to the conclusion that if PE shall reach *all* children and shall motivate children for lifelong physical activity, didactical arrangements that focus only on competition and physical abilities should be reconsidered. From the beginning, meaning kindergarten, didactical arrangements should allow sportive and less sportive children to succeed. PE lessons that focus on individual development and equal decision-making processes seem to be more suited for positive self-development than PE lessons highlighting social comparison and competition (e.g. Schempp, Cheffers, & Zaichowsky, 1983).

Furthermore, this study has shown that a gender-sensitive analyzing strategy is important. To avoid gender bias, it can be helpful to blind data and to look for theoretically based differentiating categories, like sport competence in this context. The "tradition" in self-concept research to analyze data in gender-separated populations leads to the continuous reproduction of gender stereotypes. If the presented study had decided to analyze the data gender-differentiating, the conclusion would have been based on a totally different interpretation. By choosing sport competence as differentiating category, the conclusion can be formulated in a gender-neutral way: among less sportive girls *and* boys, non-recognition experiences in PE as well as recognition experiences in PE are not associated with self-indices.



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**References**

- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Baumeister, R. F., & Leary M. R. (1995). The Need to Belong: Desire for Interpersonal Attachements as a Fundamental Human Motivation. *Psychological Bulletin*, *117*(3), 497–529.
- Berglas, S., & Jones, E. E. (1978). Drug choice as self-handicapping strategy in response to noncontingent success. *Journal of Personality and Social Psychology*, *36*, 405–417.
- Boden, J. M., Fergusson, D. M., & Horwood, L. J. (2008). Does adolescent self-esteem predict later life outcomes? A test of the causal role of self-esteem. *Development and Psychopathology*, *20*(1), 319–339.
- Bowker, A. (2006). The Relationship Between Sports Participation and Self-Esteem During Early Adolescence. *Canadian Journal of Behavioral Science*, *38*(3), 214–229.
- Brettschneider, W.-D., & Gerlach, E. (2004). *Sportengagement und Entwicklung im Kindesalter*. Aachen: Meyer & Meyer.
- Chen, L. H., Chen, M. Y., Lin, M. S., Kee, Y. H., Kuo, C. F., & Shui, S. H. (2008). Implicit theory of athletic ability and self-handicapping in college students. *Psychological Reports*, *103*, 476–484.
- Cowen, E. L., Pedersen, A., Babigian, H., Izzo, L. D., & Trost, M. A. (1973). Long-term follow-up of early detected vulnerable children. *Journal of Consulting and Clinical Psychology*, *41*, 438–446.
- Creswell, J. W., Plano Clark, V., Gutmann, M., & Hanson, W. (2003). Advances in mixed method designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in the social and behavioral sciences* (pp. 209–240). Thousand Oaks, London, New Delhi: SAGE Publications.
- Degele, N. & Schirmer, D. (2004). Selbstverständlich heteronormativ: zum Problem der Reifizierung in der Geschlechterforschung [Naturally heteronormative: about the problem of reification in gender research]. In S. Buchen, C. Helfferich, & M. S. Maier (Eds.). *Gender methodologisch. Empirische Forschung in der Informationsgesellschaft vor neuen Herausforderungen* [Gender in methodology: new challenges of research in an information society] (pp. 107–122). Wiesbaden: VS.
- Donnelly, J., Young, M., Pearson, R., Penhollow, T. M., & Hernandez, A. (2008). Area specific self-esteem, values, and adolescent substance use. *Journal of Drug Education*, *38*(4), 389–403.
- Gieß-Stüber, P. (1993). Für die Gleichrangigkeit des Unterschiedlichen [A case for equality of differences]. *Sportpädagogik*, *17*(3), 48–54.
- Goñi, A., & Zulaika, L. (2000). Relationships Between Physical Education Classes and the Enhancement of Fifth Grade Pupils' Self-Concept. *Perceptual and Motor Skills*, *91*, 246–250.
- Grimminger, E. (2013). Sport Motor Competencies and the Experience of Social Recognition among Peers in Physical Education – A Video-based Study. *Physical Education and Sport Pedagogy*, *18*(5), 506–519.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development*, *53*, 87–97.
- Honneth, A. (1995). *The Struggle for Recognition. The Moral Grammar of Social Conflicts*. Cambridge: The MIT Press.
- Honneth, A., & Margalit, A. (2001). Recognition [Supplementary Volumes]. *Proceedings of the Aristotelian Society*, *75*, 111–139.
- Horn, T. S., & Weiss, M. R. (1991). A developmental analysis of children's self-ability judgments in the physical domain. *Pediatric Exercise Science*, *3*, 310–326.
- Jackson, L. A., Hodge, C. N., & Ingram, J. M. (1994). Gender and Self-Concept: A Reexamination of Stereotypic Differences and the Role of Gender Attitudes. *Sex Roles*, *30*, 615–630.
- Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender Differences in Self-Esteem: A Meta-Analysis. *Psychological Bulletin*, *125*(4), 470–500.
- Kupersmidt, J. B., Coie, J. D., & Dodge, K. A. (1990). The role of poor peer relationships in the development of disorder. In S. R. Asher, & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 274–308). Cambridge: Cambridge University Press.
- Lai, H.-R., Lu, C.-M., Jwo, J.-C., Lee, P.-H., Chou, W.-L., & Wen, W.-Y. (2009). The Effects of a Self-Esteem Program Incorporated Into Health and Physical Education Classes. *Journal Nursing Research*, *17*(4), 233–239.
- Maddison, R., & Prapavessis, H. P. (2007). Self-handicapping in sport: a self-presentation strategy. In S. Jowett, & D. Lavalley (Eds.), *Social psychology in sport* (pp. 209 – 220). Champaign, IL: Human Kinetics.
- Marsh, H. W. (1987). The hierarchical structure of self-concept and the application of hierarchical confirmatory analysis. *Journal of Educational Measurement*, *24*, 17–19.
- Marsh, H. W. (1990). A Multidimensional, Hierarchical Model of Self-Concept: Theoretical and Empirical Justification. *Educational Psychology Review*, *2*(2), 77–172.
- Marsh, H. W., Gerlach, E., Trautwein, U., Lüdtke, O., & Brettschneider, W.-D. (2007). Longitudinal Study of Preadolescent Sport Self-Concept and Performance. Reciprocal Effects and Causal Ordering. *Child Development*, *78*(6), 1640–1656.
- Marsh, H., & Peart, N. D. (1988). Competitive and cooperative physical fitness training programs for girls: effects on physical fitness and multidimensional self-concepts. *Journal of Sport and Exercise Psychology*, *10*, 390–407.

- Marsh, H. W., & Shavelson, R. J. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist, 20*, 107–125.
- Marshall, C., & Young, M. (2009). Gender and Methodology. In C. Skelton, B. Francis, & L. Smulyan (Eds.), *The SAGE Handbook of Gender and Education* (pp. 63–79). Thousand Oaks, London: SAGE.
- Maslow, A. (1987). *Motivation and Personality*. New York: Harper & Row.
- Miethling, W. D., & Krieger, C. (2004). *Schüler im Sportunterricht* [Students in physical education]. Schorndorf: Hofmann.
- Osterman, K. F. (2000). Students' Need for Belonging in the School Community. *Review of Educational Research, 70*(3), 323–367.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*, 357–389.
- Perrin-Wallqvist, R., & Carlsson, E. S. (2011). Self-image and physical education – A phenomenological study. *The Qualitative Report, 16*(4), 933–948. Retrieved from <http://www.nova.edu/ssss/QR/QR16-4/perrin.pdf>
- Ridgers, N. D., Fazey, D. M. A., & Fairclough, S. J. (2007). Perceptions of athletic competence and fear of negative evaluation during physical education. *British Journal of Educational Psychology, 77*, 339–349.
- Sandstrom, M. J., & Cramer, P. (2003). Girls' Use of Defense Mechanism Following Peer Rejection. *Journal of Personality, 71*(4), 605–627.
- Schempp, P. G., Cheffers, J. T. F., & Zaichowsky, L. D. (1983). Influence of Decision-Making on Attitudes, Creativity, Motor Skills and Self-Concept in Elementary Children. *Research Quarterly for Exercise and Sport, 54*(2), 183–189.
- Schwarzer, R., & Jerusalem, M. (2001). *Skalen zur Erfassung von Lehrer- und Schülermerkmalen. Dokumentation der psychometrischen Verfahren im Rahmen der Wissenschaftlichen Begleitung des Modellversuchs Selbstwirksame Schulen* [Scales for teachers' and students' characteristics. Report about the psychometric tests during the evaluation study of the innovative trial self-efficacious schools]. Berlin: Freie Universität Berlin.
- Schultz, D., & Hagemann-White, C. (1990). *Das Geschlecht läuft immer mit... Die Arbeitswelt von Professorinnen und Professoren* [Gender is always present...The working world of female and male professors]. Pfaffenweiler: Centaurus
- Stake, J. E. (1992). Gender differences and similarities in self-concept within everyday contexts. *Psychology of Women Quarterly, 16*, 349–363.
- van Assche, E., Vanden Auweele, Y., Metlushko, O., & Rzewnicki, R. (1999). Prologue. In Y. van Auweele, F. Bakker, S. Biddle, M. Durand, & R. Seiler (Eds.), *Psychology for physical educators* (pp. xiii–xviii). Champaign, IL: Human Kinetics.
- Walker, S. (2004). Teacher reports of social behavior and peer acceptance in early childhood: sex and social status differences. *Child Study Journal, 34*(1), 13–28.
- Whitehead, J., & Corbin, C. (1997). Self-esteem in children and youth: The role of sport and physical education. In K. R. Fox (Ed.), *The physical self from motivation to well-being* (pp. 175–203). Champaign, IL: Human Kinetics.