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## **The relation between peer social status and self-esteem in middle childhood**

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### Abstract

The aim of the study was to examine the relation between self-esteem and peer social status. A second aim was to investigate relations between peer descriptions and self-rated descriptions. The participants were 145 children (75 girls, 70 boys). The questionnaire "I think I am" measuring self-esteem, a questionnaire measuring social status through peer nomination, and an 8-item scale for peer description were administered to children in year 4 and year 6. Children were categorized into popular, rejected, neglected, controversial, average, and unclassified social status. Findings supported the hypothesis that different social status was related to different levels of self-esteem. The popular group stood out with the highest mean value on total self-esteem, on the subscale of relations to others, and showed a tendency for significance on the subscale of psychological well-being. The rejected group had the lowest mean value on total self-esteem and psychological well-being, and the neglected had the lowest on relations to others. Further, scores on "I think I am" correlated with peer descriptions of that child. Relations were stronger for negative peer nomination than for positive peer nomination. Implications of self-esteem and peer social status were discussed in relation to previous research.

*Key words:* children's self-esteem, sociometric status, peer nomination, peer description

During a day, most people are part of several different groups. These different group constellations bring out varying traits and qualities in different people. Why do some people gain high status and some people low status? And what are the effects of being perceived as a highly likeable person versus not likeable at all? As implied by the title of Moreno's (1934) classic work on peer social status, *Who shall survive?*, the pursuit of acceptance and status can be a harsh power struggle in which people have to take part whether they want to or not.

Considering the multifaceted social situations, both benign and malevolent, that can arise in children's peer groups, it is interesting to investigate in what ways these have an effect on the individual. It seems that the social surrounding is a critical area having an outstanding impact on the creation of the self (Harter, 2012). Moreover, researchers have been able to conclude a link between self-esteem and psychological health, and it is of great importance to try to outline what causes low self-esteem in individuals (Johnsson, 2003). Accordingly, relations exist between social life, perception of the self, and well-being.

By operationally defining and measuring social status and self-esteem it is possible to expand the understanding of how these two variables are related. Social status, as measured by sociometric methods, reflects levels of acceptance and rejection within a peer group, and self-esteem is a stable and enduring evaluation of how an individual appraises herself.

The purpose of the present thesis is to explore any possible association between social peer status and self-esteem among middle school children in a classroom environment. A second purpose is to investigate the relation between self-descriptions and peer descriptions. The intention is to broaden the understanding of how children's social worlds and self-esteem are intertwined.

### *The self*

The self is broadly defined by Shavelson, Hubner, and Stanton (1976) as an individual's perceptions of herself, and these perceptions are created through interactions and experiences with the surrounding environment. The topic has gained in popularity in recent years and the range of self-help literature has exploded (Harter, 2012). The self in the western world in the 21st-century seems to be shaped by individualism, autonomy, self-direction, and self-reliance (ibid.). This is a reflection of current trends in culture and politics of society, which contribute to the development of the self. Society has moved away from traditional sources of inspiration, such as religion and deeply rooted cultural structures, to guide the development of the self (ibid.). Instead, individuals need to work out for themselves who they would want to become. While the modern society was characterized by a rational, scientific,

and objective way of approaching the self, the post-modern world has started to question the scientific "truth", its objective measures, and the ability of science to tell us anything about who we are (ibid.). With this in mind, it is not that perplexing that people show a greater interest in the self, and the search for the self, nowadays. Today, people take on a wider set of roles and create more differentiated selves which are harder to integrate into a bigger picture (ibid.). One is supposed to stand out of the crowd, be able to employ multiple selves, and at the same time be just as everyone else. It might be that this lack of integration is a consequence of the post-modern society (ibid.).

To explore and understand abstract things like the self which cannot be directly observed is a delicate task, and researchers have tried to get a grip of this elusive phenomenon. As a result of the popularity of discussing self-concept and self-esteem there is sometimes confusion as to what these words actually stand for. There are several concepts which are all quite similar to each other, and some of them overlap more or less completely. Therefore, it is convenient to unravel the terminology of the field. The present study will first and foremost use the term self-esteem to refer to processes and evaluations of the self. The term self-concept will also be used synonymously because of its close links to self-esteem. Next follows an analysis and straightening out of the key terminology; self-esteem, self-concept, self-confidence, and self-assurance.

### *Concepts*

*Self-esteem.* Self-esteem is about how one appraises oneself; about the faith put into one's own person and how satisfied one is with oneself (Johnsson, 2003). This evaluation of the self is often stable and enduring (ibid.). Researchers often distinguish between an emotional, or inner, self-esteem, and a knowledge based, or outer, self-esteem (ibid.). Inner self-esteem is characterized by unconditional love for oneself and self-respect. It develops during the first years of life through parental affirmation and psychological processes within the individual, which in turn combine to make up an inner representation of stability, safety and self-appreciation (ibid.). The inner self-esteem can be either positive or negative depending on the early experiences of the child. A person with high inner self-esteem demonstrates awareness of his or her own feelings and needs, as well as a positive view of life (Cullberg Weston, 2005). Outer self-esteem is characterized by for example talent, success and looks – factors visible to oneself and others (Johnsson, 2003). When an individual is complimented or get some other sort of affirmation, the outer self-esteem grows. A person with high outer self-esteem is responsible, keen on having influence, control and performing

well, as well as receiving appreciation for these efforts (ibid.). What is appreciated and perceived as important by others and by the individual herself will vary historically and culturally (Harter, 2012).

*Self-concept.* Self-concept refers to how a person thinks of herself and how she would describe herself in the form of specific factors (Johnsson, 2003). The term is often used synonymously with self-esteem, but some researchers prefer a more distinct separation of the two. According to Johnsson (2003), the self-concept consists of typical descriptive factors for example sex, age, hobbies, and family. Harter (1999) on the other hand, argues that a descriptive self-concept cannot be free from bias and judgment, and consequently, this make the distinguishing between self-concept and self-esteem somewhat arbitrary. The present study recognizes this fine line between self-esteem and self-concept – the difficulty of separating factual knowledge from the evaluation of the self – and will use the terms synonymously.

*Self-confidence.* Another concept, with quite similar evaluative processes to self-esteem, is self-confidence. However, self-confidence is in contrast to self-esteem a temporary evaluation of the self that can fluctuate depending on the situation (Johnsson, 2003). Compared to self-esteem, which covers a person's entire appraisal of the self, self-confidence is related to specific abilities in different areas.

*Self-assurance.* Self-assurance is the terminology used to describe an attitude or manner in which a person acts in different social settings (ibid.). High self-assurance does not automatically mean confidence and high self-esteem, but could be an individual's way of hiding his or her insecurity.

As mentioned earlier, some of these concepts overlap and different researchers prefer different usages. The focus of the present study will be on the self-representations that make up the basis for self-esteem and self-concept.

### *The developing self*

The self is developing throughout life and it starts to form, as remarked above, already in early childhood. As the child acquires new cognitive abilities these make it possible for the self to become more complex and unique (Harter, 2012). While younger children typically describe themselves quite simply and often by means of observable characteristics such as physical skills, older children display a greater cognitive capacity which allow them to describe themselves more carefully and nuanced and in distinct domains (ibid.). The selves of older children are distinguished and integrated by comparisons to others. Discovering

similarities and differences can have negative effects on the self in case one comes to the conclusion that one is not on the same level as others (ibid.). These cognitive abilities are further consolidated as the child reaches adolescence and early adulthood (ibid.).

### *Theories on self-esteem*

*Social constructivism.* From a social constructivist point of view, the self is socially constructed through interactions with significant others, such as parents, teachers, and peers (Harter, 2012). The self is also thought to be influenced by the sociocultural context by which it is surrounded (ibid.). Through the process of socialization, which happens during experiences and interactions with significant others, the child internalizes opinions and views of others. That is, the child comes to hold views and opinions of itself which it perceives that others hold of it. As the child incorporates opinions of others it also creates a representation of what is valued in society, and Nelson (2000) refers to this as a cultural self. The cultural self reflects the present values and ideals of society such as the current ideals of youth, beauty, and success, and influences the development of the self (ibid.).

James (1950) has attempted to explain the processes and functions of the self by describing the route to self-esteem as an active one in which the competencies and efforts of the individual creates self-esteem. The ambitions of the individual can be tied to three different aspects of the self: a spiritual self, a material self, and a social self (ibid.). The efforts in these three spheres create a person's self-esteem. Further, James (1950) separated general self-esteem from specific self-esteem, which is much like the separation of self-esteem and self-confidence outlined above. An individual is realistically and successfully adapted to the world when ambitions and efforts meet (ibid.).

While James described the route to self-esteem as an active one, Mead (1976) adopted a passive viewpoint. According to Mead (1976), the construction of the self is built upon how others view and evaluate that person. That is, interactions with others make up the basis for the self. Conversations of gestures are not necessarily verbal, but an indication of actions to which others respond (ibid.). Through the ability of changing perspectives, acting within different roles, and embracing attitudes and gestures of others, new experiences become incorporated into the self (ibid.). Play is one such significant arena for self-development in children. Mead separates between the Me-self and I-self, where Me-self is an objective view of the self and contains personal history and inner beliefs (ibid.). The I-self represents the subjective view of the self and refers to how a person acts in the present (ibid.). Me-self and I-self are interdependent, and interact constantly in the creation of the self (ibid.).

*Social-cognitive perspectives.* The work by Susan Harter has had a great influence on modern theories of self-esteem. Building much upon the work of James, Harter (2012) agrees to the active construction of the self, but emphasizes the significance of achievements in domains which are of personal importance. Harter (2012) and her research group have focused on the development of domain-specific self-concept. Domains are typically physical appearance, athletic competence, academic achievement, behavioral conduct, and social competence (ibid.). The experiences of achievement or defeat in different domains, will influence the evaluation of the self, depending on how much weight one puts into the domain (Johnsson, 2003). Domains of importance are bound to change throughout development; physical appearance might be of critical value to a teenager and academic achievements less important, while it might be the other way around for an eight-year-old. When speaking of global worth, or global valuation, these are not defined as the sum of the specific domains (Harter, 2012). Rather, global worth is the appreciation of one's worth as a person (ibid.). Research has shown that a good deal of support from parents and significant others tend to be related to high levels of self-esteem, while little support is related to low levels of self-esteem (Harter, 1999). When caregivers show love and support for those attributes of the individual, which he or she finds is the core of the true self, the child experiences authenticity (Harter, 2012). However, since the self is to a large extent dependent upon opinions of others, there is a risk of creating false selves (ibid.). The false self does not reflect the core of the true self. Rather, it reflects a self that others prefer, and it might contain unrealistic demands which the child struggles to live up to (ibid.).

Baumeister has also contributed with a social-cognitive perspective on the modern theories of self-esteem. According to Baumeister and Twenge (2003), relationships are crucial for human beings, and the need to belong is considered one of the most essential motivations in life. The self is more or less completely interpersonal as a consequence of what it is for – the self makes it possible for individuals to relate to one another (ibid.). The fundamental need for relationships could be traced to evolutionary theories of survival (Broberg, Granqvist, Ivarsson, & Risholm Mothander, 2010). Hunting, sharing food, and tending to possible threats together, all increased the chances of survival. Depression, anxiety, and isolation are feelings that can arise from social exclusion (Baumeister & Leary, 1995). Research has shown that the strongest predictor of happiness is social relationships, and that other factors such as, money, health, and a place to stay only weakly correlate with happiness (Myers, 2000). Relationships between social exclusion and aggression have been found in several studies (Galen & Underwood, 1993; Underwood, 2003).

*Phenomenological perspective.* Carl Rogers lay out the foundations of the phenomenal field which emphasizes that the self is subjectively constructed as a reflection of the inner and the outer world (Pervin & Cervone, 2010). The self is described as organized and enduring patterns of perception that characterize the individual (ibid.). In order to acquire a positive self-concept, the experience of unconditional love is crucial (ibid.). There is a differentiation between the actual self, the ideal self, and the ought self. The actual self is the sense of one's existent person, and the ideal self is a notion of how one would like to be – what an individual would like to become in the future. The ought self is a representation of what an individual is expected to do or accomplish (ibid.). According to Higgins (1987) discrepancies between the actual self and the ideal self can lead to depression, while discrepancies between the actual self and the ought self can lead to anxiousness.

*Attachment theory.* The theory of attachment builds upon the assumption that the care of the child and the relationship to the parents determine the child's self-esteem (Johnsson, 2003). When interacting with parents and gaining knowledge of what to expect from the parental relationship, the child starts to form internal working models consisting of the experiences it has had with the parents (Broberg et al., 2010). The internal working models are then used as a basis for all future relationships the individual encounters, and they indicate what to expect from others when one send out signals for comfort or help (ibid.). The child needs a fair amount of attention, and parents need to be responsive to the child's signals. If these needs are satisfied the child will feel secure and comfortable, something which in turn will lead to a positive view of the self and the ability to trust others (Johnsson, 2003).

### *Measuring self-esteem*

It is not an easy task to measure self-esteem. First of all, it is always tricky to measure something that cannot be observed directly. Second of all, the self is considered to have such a great range of characteristics and features involved in numerous experiences and processes, that contribute to the parlous task of effectively and accurately measuring it (Harter, 2012). Different methods have been designed, and most of them are based upon some sort of self-report method. Self-assessment scales are important to the field and a very common method of investigating self-esteem. Usually, self-reports cover important domains of the self such as physical appearance, social competence, athletic competence, academic achievement, and behavioral conduct, (Harter, 2012; Marsh, 1990). Marsh (1990) takes this assumption of a multifaceted self-concept a step further by adding several domains and arguing for a hierarchical model starting at a general level which divides into subareas of the self-concept.



The advantages of self-assessment scales are low costs and easy administration. Further, studying the self of children by means of self-report methods is more difficult than studying the self of adults. This is so because of the developmental aspect – children are to a lesser extent able to abstractly analyze and understand their own cognition and put them into a wider perspective (Harter, 2012). A parallel can be drawn to Mead's separation of the Me-self and the I-self. As the child grows older and gains more cognitive abilities the characteristics of the I-self changes, and these changes will have a direct impact on the Me-self because of their inevitable interdependence (ibid.).

### *Peer social status*

The great impact of social relationships in human development, especially child development, cannot be denied; social interactions are of vital importance to human beings. Harlow (1969) demonstrated this in his animal model of the mother-child relationship, where young rhesus monkeys were isolated from their mother and peers, and this produced long-term consequences for emotional development. Current research shows that social adaptation is a result of not just parent-child relations but also of peer experiences (Hartup, 2009). As a consequence, it is of uttermost importance to realize the impact of the peer group on social adaptation, and try to outline the social reality of children and adolescents in peer groups.

*Relationships in peer groups.* Most children form relationships with other children, often in collectives consisting of two or three peers, but sometimes many more (Patterson, 2008). A relationship can be defined as "aggregations of interactions that endure over time and that form the basis for reciprocal interpersonal expectations" (Hinde, 1997 in Hartup, 2009, p. 8). It is in relations to others that children can develop communication, knowledge, social skills, emotional regulation and so forth (Hartup, 2009). Relations outside the family most often consist of relations to other individuals within the peer group. A peer group is made up of several associated people of the same age, social class, and background (ibid.). Where there is regular interaction, shared values, belongingness, and specific norms, there is a collective which becomes a group (ibid.). The classroom is a typical example of a group to which a child can belong. Just as with the family membership, the child does not really choose the membership of the class, but becomes a part of that group as it attends school. Hence, the classroom has become a natural and quite easily accessible arena for exploring group processes – the class makes a good reference group. A reference group is a "group with which the individual identifies or to which he or she aspires to belong" (Hartup, 2009, p.15). Students in the class often know each other well, have a shared history, and the sample is

reasonably representable because of its mandatory features (ibid.). The realization of the impact of the peer group and peer relationships on social adaptation, in combination with the suitability of the class as a reference group, make it tempting to further investigate the social worlds of children.

*Sociometrics.* One attempt to study social status was created by Moreno in the 1930s, and it became known as the sociometric method. Sociometrics is the study of the individual's adaptation within a peer context, and it allows us to take a closer look at the positive and negative links within a group (Hartup, 2009). According to Moreno (1934), individuals are "social atoms" surrounding themselves with other individuals, and these individuals express a mutual wish to be associated with one another. Attraction and repulsion, or acceptance and rejection, are processes which make up the basis for an individual's perception of others, and moreover, of other individuals' perception of the individual's self (ibid.). Sociometrics can be derived from different sources of information such as who wants to engage in an activity with someone, who wants to be associated with whom et cetera (Hartup, 2009). Moreno (1934) argued, that in order to understand the social processes an individual experiences it is not enough, nor appropriate, to look at the individual only. Rather, it is better to look at the social system in which the person is embedded.

### *Sociometric theories*

During the 1980s and the 1990s the dominant view of social status was that the sociometric measurement reflected social competence (Cillessen, 2009). It was believed that sound relationships were essential for social and cognitive growth (ibid.). The following groups were identified and are still today the core of sociometric theory: popular, rejected, controversial, neglected, and average. Popular children would therefore have the best opportunities for development, while rejected children would be at risk for hindered development (ibid.).

*Social competence model.* Parker and Asher (1987) identified two theoretical models building upon the assumption of social competence. According to the incidental model, social competence, psychopathology, and social adjustment are reflected in the quality of relationships with peers (ibid.). The causal model holds that future competence, health and adjustment will be directly affected by the quality of that child's relationships (ibid.). Nowadays, most researchers agree that both models are valid and in action at the same time – there is a reciprocal association between social competence, adjustment, and peer relations (Hartup, 2009).

*Reciprocal social competence.* Coie (1990) developed the theories by Parker and Asher (1987) by highlighting the reciprocal part. Two phases were distinguished; the first phase, characterized by status driven by behavior, and the second phase, characterized by behavior driven by status (Coie, 1990). In the first phase a child interacts with a peer and tries to settle upon what kinds of behavior that peer most often displays. It could be described as a sort of data collection. The extent to which a peer is evaluated as highly socially competent, or lacking social competence, will determine the status of that peer (ibid.). Once the social status has been settled, judgments of peers will become based on reputation rather than actual encounters (ibid.). In a situation where a child in the first phase has been rejected, it maintains its rejected status in the second phase through reputation. This can add on to the impairing of the child's interactions with peers, and contribute to a vicious circle of lack of social competence and rejection (ibid.).

*Group dynamics.* Group dynamics is the traditional way of theoretically relating to sociometric methods (Cillessen, 2009). This theory was preferred by Moreno, and it focuses on the assumption that all individuals are embedded in social networks which influence them in different ways. The role a person embraces is depending on the forces of the group and a person's position within it (ibid.). Roles are constantly changing as a result of different group dynamics (ibid.).

*Social-contextual theories.* The social context is one great determinant of social behavior. The peer group is not isolated from impacting structures outside of it, and the peer group will always be subjected to influences from larger social systems (Cillessen, 2009). Examples of larger social systems could be neighborhood, school, religion, and subculture. According to social contextual theories, how social status appears will depend on these overarching social systems (ibid.).

#### *Sociometrics and methodology*

There are different ways of measuring social status in the peer group, and there are both qualitative and quantitative approaches. Four major ways of examining social behavior in the peer group are: peer evaluation, teachers observations, objective observers, and self-reports (Cillessen & Mayeux, 2004). Reports from peers, teachers, and observers often do correlate positively, whilst self-reports provide less information about all the nuances of sociometric status (ibid.). Therefore, self-reports are not as well suited for data collection as the other three. Moreover, sociometric status can only be fully captured by peers, not by

teachers. Children have a unique insight into the peer group, and research has shown differences in information gathered from peers and teachers (Cillessen, 2009).

*Peer evaluation.* Reports from peers are commonly used to outline the social relationships of groups. Peer nomination is the most frequently used method where children are asked to nominate peers they like and peers they dislike (Terry, 2000). For example, the child nominates three peers who he or she wants to play with, and three peers who he or she does not want to play with. A great advantage of this method is that data can be gathered with relative ease (ibid.). The question is how many nominations are optimal, that is, whether to use limited or unlimited nominations. To gain greater ecological validity it seems reasonable to allow voters to nominate as many peers as they would like (Cillessen, 2009). It is also difficult, and perhaps not even appropriate, to allow just three nominations when the reference group is the entire grade. It seems to be more efficient to use unlimited nominations for middle and high school students where there is more interaction between classes. However, a restriction of the number of nominations to a maximum could be favorable. Otherwise, there is a risk of the voter becoming too unselective, and as a result, nominations will not reflect the true relationships of the group (ibid.). Further research is needed to settle upon this question (ibid.).

*The CDC-procedure.* One of the most well-known and frequently used sociometric method was designed by Coie, Dodge, and Coppotelli (1982), and is based on peer nomination. Participants nominate three peers whom they like the most and three peers whom they like the least. The reference group is the classroom, that is, participants can only nominate peers in their class. The voter population is all participating students in the study, and the votee population is all students who can be nominated (all students in the class). Two social variables, social impact and social preference, can be derived by counting the number of positive and negative nominations for each votee. The social impact score is the total number of positive and negative nominations, and the social preference score is the sum of positive nominations subtracted by negative nominations (ibid.). When these scores are calculated, it is possible to place each votee on a dimension of five different sociometric statuses. The five statuses are: sociometrically popular, sociometrically controversial, sociometrically rejected, sociometrically neglected, and sociometrically average (ibid.). Popular children receive many positive and few negative nominations; controversial children receive many positive nominations as well as many negative nominations; rejected children receive many negative and few positive nominations; neglected children receive few positive and few negative nominations; average children receive some positive and at times some

negative nominations (Patterson, 2008). This proceeding of sociometric tests has become known as the CDC-procedure.

*The use of positive and negative nominations.* By using both positive and negative nominations it is possible to outline more of the nuances of group relations, than if only positive nominations were used. Researchers agree that this is essential in order to capture social status in peer groups (Cillessen & Marks, 2011). For example, both positive and negative nominations allow for a distinction between rejected and neglected children, since rejected children receive many negative nominations and neglected children receive only some or no nominations at all (Thompson & Powell, 1951). It is important to remember that social status in a group is not a characteristic of the individual personality. The status derived from sociometric tests is always relative to the group (Coie & Cillessen, 1993). An individual who is rejected in school, for example, might be average in the group constellation of the soccer team. Statuses derived from positive and negative nominations are now commonly used for assessing peer relations, and the present study builds upon the peer evaluation procedure by Coie et al. (1982) described above.

#### *The self and peer social status*

Relationships in life are very important as a means of development of social competence and self-esteem. The identification of this association has led to an increasing interest in the study of childhood relationships in relation to behavior, thoughts, and feelings. Sociometric measures provide a medium for gathering information about to what extent a child is socially accepted (Cillessen, 2009). The categorization of children into different sociometric groups; popular, rejected, controversial, neglected, and average, has made it possible for researchers to further explore and analyze what characterize individuals in these different groups. There is considerable variation in displays of behavior between the five different status groups, and it is interesting to see how this can be directly and indirectly related to self-esteem. Many researchers have investigated behavioral tendencies of children categorized with different sociometric statuses, and Jackson and Bracken (1998) have examined the relation between sociometric status and self-concept among 815 children and adolescents from grade six to eight in the USA. In general, when employing a sociometric test, 55% is average, 15% is popular or rejected, and 5-10% is neglected or controversial (Cillessen, 2009). Self-concept and behavioral tendencies of the five different social statuses will be outlined next.

*Sociometrically popular.* This group consists of children who are liked by many and disliked by few. The meaning of this category should not be confused with a sociological interpretation of the word popular, in which popular children and adolescents are described as good-looking, self-confident and sociable – not necessarily liked by their peers, but respected for their status (Cillessen & Marks, 2011). From a psychological perspective, popular children are friendly, sociable and helpful in a way that makes them liked and accepted by their peers (ibid.). The popular status has been directly related to high levels of self-esteem as shown by Boivin and Begin (1989), Jackson and Bracken (1998), and de Bruyn and van den Boom (2005). The general characteristics of these children are helpful, cooperative, friendly, and sociable manners, and they do often take on a leadership role among peers (Coie et al., 1982). A successful way of relating to others is one important domain of self-esteem (Harter, 2012). According to Jackson and Bracken (1998), high score on social self-esteem was the most differentiating feature of the popular group. Moreover, popular children usually achieve superior academic results (Zettergren, 2003). It has also been noted that popular children appear neater and more physically attractive than children less popular (Kennedy, 1990). However, one should note that Jackson and Bracken (1998) found that popular children did not score higher on the physical scale compared to average children.

*Sociometrically rejected.* Children in this group are often disliked by many peers. This category includes children who do not have good social skills and who tend to be withdrawn (Newcomb, Bukowski, & Pattee, 1993). The rejected group is often referred to as the polar opposite of the popular group (ibid.). Negative behavior, such as aggression, in combination with withdrawal and bad social skills can lead to alienation and disapproval among peers (ibid.). Jackson and Bracken (1998) found that rejected children scored lower than the popular group on total self-esteem, as well as on every investigated subscale of self-esteem. They also scored significantly lower than the average and unclassified groups on the scale of social self-concept. Further, the rejected group was the only group which scored significantly lower than any other on the scale of physical abilities (ibid.). Longitudinal research show that rejected status tend to be fairly stable over time (Patterson, 2008).

*Sociometrically controversial.* These children are both liked and disliked by their peers. A typical feature of this group is that children are being very sociable and cooperative with peers they like, but, on the other hand, very rejecting and uncooperative with peers they do not like as much (Newcomb et al., 1993). That is, controversial children display behaviors that can be traced to both the popular and the rejected group. According to the results of the study by Jackson and Bracken (1998) the controversial children generally scored about as

high as the popular group on self-esteem, but lower than the popular group on the subscale of academic achievement. This category seems to be quite unstable and controversial children tend to be found in other categories after some time (Rubin, Bukowski, & Parker in Patterson, 2008).

*Sociometrically neglected.* Children in this group are those children who are not especially liked or disliked, but are ignored by nominating peers (Dodge, 1983). It could be the case of a shy child or a child that is new to the group (ibid.). Dodge (1983) observed that neglected children spend more time in solitary play compared to the average group, and that the play contained more inappropriate elements as also displayed by rejected children. However, neglected children distinguished themselves from the rejected by displaying low levels of aggression (ibid.). Neglected children have demonstrated scores that are on the same level as the scores of popular children on all self-concept scales except for social self-concept (Jackson & Bracken, 1998). This category is the least stable and it is likely that a sociometrically neglected child will be assigned to another category in the next grade (Patterson, 2008).

*Sociometrically average.* Most children in sociometric tests will be classified as average, that is, they are liked by some and disliked by a few (Cillessen, 2009). Behavior is to a great deal helpful and sociable, but occasionally turbulent and not well regulated (Patterson, 2008). Average children scored about the same as the popular children on the physical abilities scale, and about the same as the rejected children for the remaining self-concept scales (Jackson & Bracken, 1998). Overall, the total score was significantly lower for the average group than the popular group (ibid.).

According to the study by Jackson and Bracken (1998), the self-concept concerning family, affects, and competence were the least differentiating domains, while physical abilities, academic achievement, and particularly social abilities worked as distinguishing factors. Harter (2012) agrees to the dominance of the domain of physical abilities. It has been shown, at every level of development (young children to senior citizens), that the evaluation of one's own physical appearance works as an outstanding predictor of both global and domain specific self-esteem. O'Dea (2006), for example, showed in a longitudinal study that girls at age 13 with higher BMI scores had more negative evaluations of global self-esteem, physical appearance, and close friendships.

*Popularity, friendships, and self-esteem*

Litwack, Wargo Aikins, and Cillessen (2012) investigated the relationship between sociometric and perceived popularity, and depressive affect and self-esteem among 13- to 15-year-old adolescents. Sociometric popularity was measured by the nomination method (ibid.). Perceived popularity was also measured by means of the nomination method, but instead of nominating the most and the least liked peers the participants were asked to nominate the most and the least popular peers (ibid.). This is thought to reflect status based on dominance, power, and visibility (ibid.). Questionnaires for depressive affect and self-esteem were completed. Using structural equation modeling, the results showed that perceived popularity had a direct influence on self-esteem and depressive affect, and sociometric popularity, as mediated by friendship conflict, had an influence on self-esteem and depressive affect (ibid.). Unique to the sociometric popularity group is less conflict and more friendships characterized by reciprocity (ibid.). That is, it seems that sociometric status and quality of friendships are associated, and that friendships characterized by low levels of conflict influence depressive affect negatively and self-esteem positively. Further, the results showed that self-esteem was predicted more strongly by conflict among boys than girls. The researchers argue, this might be a reflection of more difficulties resolving conflicts among boys (ibid.). In sum, sociometric popularity is related to more reciprocal friendships and less conflict, which in turn guard against depressive affect and lead to higher levels of self-esteem (ibid.).

#### *Sociometrics and behavioral correlates*

*Sociometric research in Sweden.* Zettergren (2003) has explored behavioral correlates of Swedish girls and boys belonging to different sociometric groups in a longitudinal study. Sociometric status was measured in grade 4 and children belonging to stable categories of average, rejected, and popular status were included in the study (ibid.). In grade 8 there was an investigation of school adjustment by means of different measures such as grades, intelligence tests, self-reports about social status, standardized achievement tests, and dropout rates for boys (ibid.). Results showed that while popular boys and girls performed at a superior level academically and received higher scores on intelligence tests, rejected boys and girls performed worse than both popular and average students (ibid.). Moreover, rejected boys tended to drop out of school more often than boys in the other categories (dropout rates for girls were not collected since this has primarily been a problem amongst boys). No significant gender differences were found (ibid.).

Data from the same participants were also used to investigate social adjustment and the peer situation in grade 8 (Zettergren, 2005). Self-report measures on social status and



popularity showed that popular students had remained their popularity and high status, while rejected adolescents still were less popular than the average and popular groups (ibid.). The rejected students were also aware of their unpopularity, and they did not have as many friends in school (ibid.).

In conclusion, though the number of participants in this study was limited ( $N = 15$  for each status group), it still supports many previous findings and can provide an indication of how sociometric status is reflected in children and adolescents in Sweden. Self-esteem in relation to sociometric status is an area which have not received that much attention in research, especially not in Sweden. The present research will hopefully shed some new light on this particular area.

### *Purpose of the study*

The purpose of the present study is to investigate whether there is any relationship between self-esteem and sociometric status amongst children in Swedish middle schools. Moreover, the study will also look into whether there is any coherence between self-esteem, as rated by the participant herself, and how the participant is rated by peers.

### *Hypotheses*

- 1.0 There are differences between the different sociometric groups and level of self-esteem.
- 2.0 Scores on self-rated self-esteem and scores by peer-rated descriptions of children are associated.

## Methods

The present study was part of an ongoing research project at Lund University exploring differences in children's and adolescent's self-esteem.

### *Participants*

The participants were 145 children (70 boys, 75 girls) from ethnically and socioeconomically mixed areas of the south of Sweden. 74 participants (37 boys, 37 girls) were in 4th grade, 71 participants (33 boys, 38 girls) were in 6th grade, and they were recruited from five different elementary schools. A total of seven classes participated in the study; three classes from year 4 and four classes from year 6. 84% stated that Swedish was most often spoken at home.

*Attrition.* The total participation rate was 70%, which leaves a fairly large percentage of attrition. In year 4, 76% of those asked participated (65%, 87%, and 88% for each of the

three classes respectively). In year 6, 66% of those asked participated (52%, 57%, 70%, and 83% for each of the four classes respectively). The most common reason for attrition was that the participant had not brought the informed consent with legal guardian's signature back to school. According to Crick and Ladd (1989) the required participation rate for sociometric tests was around 70% for a study with limited nominations. It appeared that the neglected and the average groups were more sensitive to declining participation rates, and that the rejected group showed most resistance to voter attrition (ibid.). When unlimited nominations were used, Wargo Aikins and Cillessen found fairly stable results at a participation rate of 60% (in Cillessen, 2009). This picture of participation rates at 60-70% was also supported by Cillessen and Marks (2011).

### *Materials*

In order to measure self-esteem the study made use of the test "I think I am", which was the instrument previously used in the research project. This test is frequently used in clinical settings as well as in research. A sociometric test measured social status of children in the classroom, and the procedure is commonly used by researchers as a way of mapping out social relations in groups. As in previous research in the project, participants filled out a form covering the demographic variables: sex, age and ethnicity.

*"I think I am"*. To investigate self-esteem the study used a test called "I think I am" (own translation) version B. The test is a self-assessment scales test, which was developed in Sweden as a means for measuring self-esteem in children and adolescents aged 7 to 16 (Ouvinen-Birgerstam, 1999). There are two versions of the test; one suited for primary school (version A), and one for middle and high school (version B). The present study used version B, suited for middle and high school participants. The test was composed of 72 statements to which the participants responded by marking how well each statement corresponded to their image of themselves. The statements were formulated either positively or negatively, and possible responses were: "agree completely", "agree partly", "disagree partly", and "disagree completely". Examples of statements are: "I have lots of friends", "I give up easily", "I am good at school", "I do not like my body", and "I am calm and controlled". The test covered five central domains of importance to the experience of the self: "Physical abilities", "Psychological well-being", "Skills and talents", "Relations to parents and family", and "Relations to others".

The test was standardized according to data gathered from year 1 to 9 during a three year period in 1981-1983. According to item analysis 67 statements were significantly ( $p <$

.001) correlated with the total score in all five central domains. Furthermore, the correlations between the five subscales to the total scale were .71-.82, and the inter correlations between the subscales were positive ranging from .31 to .60. In the split-half test each of the five subscales ranged between .91 to .93, and the reliability was evaluated as high. Stability over time was measured at two points: after one year and after two years. After one year the correlation coefficient for the total scale was .74 for year 4, and .82 for years 7 and 8. After two years the correlation coefficients for years 3, 6 and 9 were between .60 and .62. Thus, the overall reliability for the test was high (Ouvinen-Birgerstam, 1999).

The validity of "I think I am" was tested by comparing results from interviews and observations of behavior performed by a psychologist not aware of how participants had responded in the test. There was a positive correlation between total test score and observations of behavior. Moreover, "I think I am" was compared to results on another method called "The adjective list" (own translation). "The adjective list" was also supposed to measure self-concept and there were fairly good correlations between the two measures (.60 in year 1; .75 in year 4; and .72 in year 7). In conclusion, "I think I am" seems to be measuring what it is set out to measure (Ouvinen-Birgerstam, 1999).

*Sociometric test.* In order to outline the specific status relationships in the classroom the present study used a sociometric test designed by Hoff (2012), and it was inspired by the method used by Coie et al. (1982). The participants were instructed to write down the names of at least three peers whom they gladly spent time with (positive nomination), and at least three peers whom they seldom spent time with (negative nomination). The maximum number of nominations was six for each category respectively. Deep concern was put into the formulation of the task in order to make it ethically acceptable, and it was decided that the classic wording "like most" and "like least" was too harsh, and could perhaps be interpreted as offensive. The participants were also instructed to describe the nominated peers on an 8-item assessment scale. The eight statements were: "Is calm and controlled", "Gets angry easily", "Is good at coming up with activities", "Is quiet and shy", "Others often want to do as he or she does", "Is in a good mood", "Gets along easily with others", and "Is an easy learner". On a scale from 1 to 4, 1 being seldom and 4 being often, the participants marked the score of each chosen peer on these statements covering for the central domains of "Psychological well-being", "Relations to others", and "Skills and talents". The participants did not evaluate peers on "Relations to parents and family" because of possible lack of insight into this particular area. Neither did the participants evaluate the "Physical abilities" domain due to ethical concerns.

According to the procedure by Coie et al. (1982), the positive (gladly spend time with) and negative (seldom spend time with) nominations were standardized into z-scores, and two separate social variables were calculated: social impact and social preference. Social impact was calculated by adding the positive and negative nominations, and social preference was calculated by subtracting the negative nominations from the positive nominations. The popular group had a standard score of  $>1.0$  on the social preference variable, seldom nominations of less than 0, and gladly nominations of more than 0. The rejected group had a standard score of  $<-1.0$  on the social preference variable, seldom nominations of more than 0, and gladly nominations of less than 0. Participants in the neglected group had a standard score of  $<-1.0$  on the social impact variable, and seldom and gladly nominations of a maximum of 0. The controversial group had a standard score of  $>1.0$  on the social impact variable, and seldom and gladly nominations of more than 0. The average group had a standard score of more than  $-0.5$  and less than  $0.5$  on social preference. Scores which qualified as both neglected and average were categorized as average in order to approach previously recorded distributions of 55% average, 15% popular, and 5-10% neglected or controversial (Cillessen, 2009).

A meta-analysis of the reliability of longitudinal data on sociometric status showed that the overall stability for category systems and individual status type was low when using Cohen's kappa (Cillessen, Bukowski, & Haselager, 2000). That is, the possibility of obtaining similar results on repeated measures were to a large extent influenced by chance. Over a one year period, roughly 50% of the rejected and popular students received the same status, and the stability of the controversial and neglected statuses were even lower (*ibid.*). However, this fluctuation was probably a normal reflection of individual development (such as greater social competence), normative development (such as change in what is perceived as important; individual status or friendship), and structural changes (such as transition to a new grade, new class mates, and different compositions of ethnicities and gender in the class). Zettergren (2007) explored the stability of social status among Swedish girls over a three year period ranging from late childhood to early adolescence. Through the method of cluster analysis Zettergren (2007) found stable clusters of average, rejected, and popular groups, and the cluster analysis explained 66.5% of the total error sum of squares. The neglected and controversial groups did not form any stable clusters (*ibid.*).

The validity of sociometric categories was analyzed in a meta-study by Newcomb et al. (1993). Based on different sources of information, the five different categories were

compared with measures of competencies and social behavior. The effect sizes were moderate to large and implied that different status groups clearly displayed different behaviors (ibid.).

*Demographical variables form.* The participants filled out a form concerning demographical variables including sex, grade, and whether the language spoken at home was predominantly Swedish or another language (Appendix A). If Swedish was not the overriding language the participant was asked to identify what other language was spoken. However, this question was optional. Exploring the language spoken at home was a convenient, but of course a simplified, measure of cultural diversity. The first names of the participants had to be recorded on both the self-esteem test and the sociometric status test. Otherwise, the relation between self-esteem and sociometric status could not be investigated. To ensure anonymity, the names of the participants were converted into numbers as soon as the scores were computerized.

### *Procedure*

Five different middle schools in different locations in the south of Sweden were contacted. The different areas were believed to be ethnically and socioeconomically mixed, and therefore make up a representative sample. Seven classes participated in the study: three classes of 4th graders, and four classes of 6th graders. Three of them made up larger reference groups than the other four, because of a different pedagogical structure in which the entire grade was split into two halves varying from day to day. Because of this, it was considered more valid to use the entire grade as a reference group. The other four classes could only nominate peers within their own class.

A letter of information (Appendix B) was sent to the local principal at each school and permission to carry out the study was gained. The teacher of each class was contacted and the author visited the classes some time before the day when the actual test was administered. During this visit the author introduced herself, informed the students about the study, and handed out letters of informed consent (Appendix C) which the students were to bring home to the legal guardians. Included in the study were children who received permission from legal guardians, and who actually wanted to participate.

The test was administered by the author during November and the beginning of December in 2012. Instructions of the self-esteem questionnaire were based on the manual of "I think I am". Instructions for the sociometric test was also carried out in the same way at each administration. The participants were also reminded that the test was voluntary and

anonymous. The author and an assistant were always present in order to answer any possible questions and to make sure procedures were being followed.

The procedure took about 30-40 minutes to complete, and afterwards the participants had an opportunity to ask questions.

### *Data analysis*

The statistical analysis was carried through by means of the Statistical Package for Social Sciences (SPSS) version 20. A one-way between groups analysis of variance (ANOVA) was employed in order to examine the sociometric status groups and the total score of self-esteem, as well as the five different subscales of self-esteem: physical abilities, skills and talents, relation to family, relations to others, and psychological well-being. The Tukey HSD Test was used to detect between which groups differences had appeared. The independent variables were the five different social status categories; popular, rejected, neglected, controversial, and average. A sixth independent variable of unclassified statuses was also added. Moreover, a high status group was created by combining the popular and the controversial groups, and a low status group was created by combining the rejected and the neglected groups. This made it possible to compare overall high status with overall low status. An independent-samples T-Test was used to compare the scores of the high and the low status groups on total self-esteem and the five subscales. The dependent variable was self-esteem.

When variances within groups differed significantly (at a significance level of  $p < .05$ ), the Kruskal-Wallis Test was used instead. Effect sizes were calculated by means of eta squared where 1% is small, 6% is medium, and 13.8% is a large effect size (Pallant, 2010). When nonparametric tests were employed, the criteria for effect sizes were .1 = small effect, .3 = medium effect, and .5 = large effect (Cohen, 1988).

Correlations between self-rated self-esteem and peer-rated descriptions were calculated using Pearson product-moment correlation coefficient. The strength of correlation was also interpreted according to Cohen's (1988) guidelines outlined above.

Responses on "I think I am" were translated into scores ranging from -2 to 2, according to the procedure of interpreting responses in light of negatively or positively formulated statements. There were a few responses in between two choices and these were given the value between those two. For example, a response between the choices corresponding to 1 and 2 were given the value of 1.5. Moreover, a few statements were marked with two responses. In this case, the mean score of the corresponding values was

calculated. In cases where a statement was not responded to at all, it was replaced by the mean score of that particular individual's subscale.

Responses on peer description were also translated into scores ranging from -2 to 2, and adjusted in accordance with the procedure of interpreting responses in light of negatively or positively formulated statements. In case the participant had been nominated more than once the mean value of peer descriptions was calculated. Responses in between two choices were given the corresponding value. When a statement was marked with two responses, the mean value was calculated.

### Results

The participants were categorized by the sociometric classification procedure into one of the five status categories: popular ( $n = 25$ ), rejected ( $n = 22$ ), neglected ( $n = 20$ ), controversial ( $n = 21$ ), and average ( $n = 34$ ). Participants who did not fit into any of the categories above were categorized as unclassified ( $n = 12$ ). The unclassified group was taken into the analysis in order to determine whether it differed significantly from the other status categories. However, the results will not focus on the unclassified group since the sample of the group was so small and because nothing is really known about this group. A high status group ( $n = 46$ ) was created by combining the popular and controversial groups, and a low status group ( $n = 42$ ) was created by combining the rejected and neglected groups.

After the categorization procedure the data was explored and outliers were detected. Considering the small sample sizes outliers can have a severe distorting effect on the result, and have to be controlled for. The rejected group had both the highest and the lowest scores of all. Two participants in this group scored 137 on the total scale of self-esteem. These two values differed so much from the closest value of the group that they were removed. Three participants scored extremely low (-6, -4, and 1) compared to the rest of the group, and were therefore not included in the analysis. In the popular group, two low values (38 and 57) were controlled for. Further, two low values (22 and 28) in the controversial group, and two low values (12 and 15) in the average group were removed. Common to all outliers was that they differed to  $\pm 10$  or more points to the closest value. After the removal of outliers, 134 participants remained, and the following analyses are based on the scores of those participants.

#### *Sociometric status and self-esteem*

*Hypothesis 1.* The first hypothesis was that there are differences between different sociometric groups and level of self-esteem, and this relationship was investigated.

Cronbach's Alpha for the five subscales of self-esteem was .78. Table 1 displays the five different status categories, the unclassified group, and the combined high and low status groups. Mean values and standard deviation for the total scale of self-esteem and the five subscales are presented in relation to these groups.

*Total scale.* There was a statistically significant difference in total level of self-esteem between the six different groups (popular,  $n = 25$ , rejected,  $n = 22$ , neglected,  $n = 20$ , controversial,  $n = 21$ , average,  $n = 35$ , unclassified,  $n = 12$ ),  $\chi^2 (5, n = 134) = 11.27, p = .046$ . The controversial and the popular groups had higher median scores (controversial,  $Md = 79.69$ , popular,  $Md = 79.14$ ) than the other four status groups (average,  $Md = 71.68$ , rejected,  $Md = 59.48$ , neglected,  $Md = 53.70$ , unclassified,  $Md = 47.79$ ). A Mann-Whitney U Test was used to investigate between which groups there was a significant difference. Type 1 errors were controlled for by the Bonferroni adjustment ( $p = .025$ ). The test revealed a difference close to statistical significance in self-esteem of the popular group ( $Md = 96, n = 25$ ) and the neglected group ( $Md = 84.50, n = 22$ ),  $U = 153, z = -2.217, p = .027, r = .33$ . .33 is a medium effect size.

There was also a statistically significant difference in total scores for high status ( $M = 94.11, SD = 19.25$ ) and low status groups ( $M = 77.03, SD = 28.75; t(88) = 3.24, p = .002$ , two-tailed). The magnitude of the differences in the means (mean difference = 17.08, 95% *CI*: 6.57 to 27.58) was medium (eta squared = .11).

*Relations to others.* There was a statistically significant difference at the  $p < .05$  level in scores on relations to others for the six different status groups:  $F(5, 128) = 2.608, p = .028$ . The effect size was .09. Post-hoc comparisons indicated that the difference was between the popular and the neglected group ( $p = .03$ ).

There was also a statistically significant difference in scores on relations to others for the high status ( $M = 17.55, SD = 6.50$ ) and the low status groups ( $M = 13.49, SD = 6.32; t(88) = 2.97, p = .004$ , two-tailed). The magnitude of the differences in means (mean difference = 4.06, 95% *CI*: 1.34 to 6.79) was medium (eta squared = .09).

*Psychological well-being.* The subscale of psychological well-being came close to a statistically significant difference at the  $p < .05$  level in self-esteem scores for the six different status groups:  $F(5, 128) = 2.23, p = .055$ . The effect size, calculated using eta squared, was .08. Post-hoc comparisons indicated that the difference was between the popular and the rejected group ( $p = .06$ ).

There was a statistically significant difference in scores on psychological well-being for the high status ( $M = 19.23, SD = 6.05$ ) and the low status groups ( $M = 15.89, SD = 7.57; t$



Table 1

*Means and standard deviation for self-esteem and the five subscales for the six status groups and the high and low status groups.*

Scale	Popular (n = 25) M (SD)	Rejected (n = 22) M (SD)	Neglected (n = 20) M (SD)	Controversial (n = 21) M (SD)	Average (n = 34) M (SD)	Unclassified (n = 12) M (SD)	High status (n = 46) M (SD)	Low status (n = 42) M (SD)
Total scale	94.98 (15.57)	76.33 (33.63)	77.80 (23.07)	93.07 (23.26)	88.91 (20.52)	73.18 (25.50)	94.11 (19.25)	77.03 (28.75)
Physical abilities	18.04 (4.98)	14.91 (10.51)	16.25 (5.90)	20.19 (6.31)	15.94 (8.46)	14.42 (6.71)	19.02 (5.66)	15.55 (8.55)
Skills and talents	14.72 (4.69)	12.41 (9.72)	13.45 (6.61)	16.95 (6.05)	14.50 (5.61)	10.41 (7.20)	15.74 (5.41)	12.90 (8.30)
Psychological well-being	20.54 (5.31)	15.01 (8.09)	16.85 (7.03)	17.67 (6.61)	19.18 (6.61)	15.42 (6.72)	19.23 (6.05)	15.89 (7.57)
Relation to family	23.21 (3.68)	20.00 (8.60)	18.33 (5.92)	21.81 (4.64)	22.45 (4.41)	18.25 (7.96)	22.56 (4.16)	19.20 (7.41)
Relations to others	18.48 (4.43)	14.00 (6.58)	12.93 (6.15)	16.45 (8.32)	16.84 (5.05)	14.68 (5.68)	17.55 (6.50)	13.49 (6.32)

(88) = 2.31,  $p = .024$ , two-tailed). The magnitude of the differences in means (mean difference = 3.32, 95% *CI*: 0.46 to 6.18) was medium (eta squared = .06).

*Relation to family.* No statistically significant difference was found in scores on relation to family for the six different status groups. However, there was a statistically significant difference in scores on relation to family for the high status ( $M = 22.56$ ,  $SD = 4.16$ ) and the low status groups ( $M = 19.20$ ,  $SD = 7.41$ ;  $t(88) = 2.59$ ,  $p = .01$ , two-tailed). The magnitude of the differences in means (mean difference = 3.36, 95% *CI*: 0.78 to 5.95) was medium (eta squared = .07).

*Physical abilities.* No statistically significant differences were found on physical abilities for the six different groups. However, there was a statistically significant difference in scores on physical abilities for the high status ( $M = 19.02$ ,  $SD = 5.66$ ) and the low status groups ( $M = 15.55$ ,  $SD = 8.55$ ;  $t(88) = 2.23$ ,  $p = .03$ , two-tailed). The magnitude of the differences in means (mean difference = 3.48, 95% *CI*: 0.36 to 6.59) was small (eta squared = .05).

*Skills and talents.* No statistically significant difference was found on skills and talents for the six different status groups or the high and low status groups.

#### *Relation of self-rated self-esteem and peer descriptions*

*Hypothesis 2.* The second hypothesis (2.0) of the study was that scores on self-rated self-esteem and scores by peer-rated descriptions of peers are associated. The positive (nominated as gladly spend time with) and the negative (nominated as seldom spend time with) peer descriptions were analyzed separately. Cronbach's Alpha was .59 for the positive nominations, and .64 for the negative nominations. Descriptive statistics for the two groups are presented in Table 2.

Table 2

*Means and standard deviations for the positive and the negative nomination groups.*

Scale	Positive peer nomination	Negative peer nomination
	<i>M (SD)</i>	<i>M (SD)</i>
Total self-esteem	7.2 (3.72)	2.5 (5.91)
Psychological well-being	3.26 (1.79)	1.37 (3.14)
Skills and talents	1.92 (1.28)	0.54 (1.96)
Relations to others	2.02 (1.87)	0.56 (2.50)

The correlations between self-rated self-esteem and peer descriptions were investigated. Total self-esteem was correlated with total peer-rated descriptions, and the subscales investigated were: psychological well-being, skills and talents, and relations to others. Table 3 displays the correlations for the positive peer descriptions, and Table 4 displays the correlations for the negative peer descriptions.

The strength of the correlations of positive nominations are small. The determination coefficient ranging from 3,53% to 4,12%. The strength of the correlations of negative nominations are medium. The determination coefficient ranging from 9,67% to 12,67%.

Table 3

*Correlation between self-rated self-esteem and peer-rated descriptions on the total scale and on three sub scales for positive nominations ( n = 125).*

	Self-rated			
	Total self-esteem	Psychological well-being	Skills and talents	Relations to others
Peer-rated				
Total peer description	.188*			
Psychological well-being		.191*		
Skills and talents			.198*	
Relations to others				.203*

*Note.* \* $p < .05$  (2-tailed).

Table 4

*Correlation between self-rated self-esteem and peer-rated descriptions on the total scale and on three subscales for negative nominations ( n = 114).*

	Self-rated			
	Total self-esteem	Psychological well-being	Skills and talents	Relations to others
Peer-rated				
Total peer description	.322**			
Psychological well-being		.311**		
Skills and talents			.349**	
Relations to others				.356**

*Note.* \*\* $p < .01$  (2-tailed).

## Discussion

### *Discussion of results*

The present study examined differences in self-esteem across social groups among middle school children. The first hypothesis of the study was that different social statuses, popular, rejected, neglected, controversial, and average, would be related to different levels of self-esteem. The second hypothesis was that scores on self-rated self-esteem and scores by peer-rated descriptions of children would be associated. Both hypotheses were confirmed, and next follows a discussion of the results in relation to total scale and subscales, and for the relation of self descriptions and peer descriptions.

*Sociometric status and self-esteem.* Moreno (1934) argued that one should acknowledge the importance of the social system in which the individual is embedded in order to understand her, and it seems he was right. There was a significant difference in level of total self-esteem for the different status groups. That is, peer social status was related to different levels of self-esteem and hypothesis 1 should be kept. As Moreno (1934) theorized, acceptance and rejection contribute to an individual's perception of herself, and could explain differences in self-esteem for the different status groups. The popular group stood out with the highest overall mean value, closely followed by the controversial group. The closeness of the popular and the controversial groups on level of self-esteem was in line with previous research by Jackson and Bracken (1998). Though it only reached close to statistical significance, there seemed to be a difference between the popular and the neglected groups. This result was not in line with the study by Jackson and Bracken (1998) where the neglected group only differed from the popular group on the social subscale. However, when looking at mean values, the rejected group scored lower than the others (except for the unclassified group). This confirms the contrast between the popular and the rejected groups as polar opposites which has been found in previous research (Jackson & Bracken, 1998; Newcomb et al., 1993; Zettergren 2003). Furthermore, high self-esteem among popular children was also found in research by Boivin and Begin (1989), Jackson and Bracken (1998), and de Bruyn and van den Boom (2005), which further contributes to the credibility of the result.

The result from the analysis of the combined high status and low status groups on total self-esteem showed that the high status group scored significantly higher on self-esteem than the low status group. The comparison of the high status and the low status groups produced a bigger effect size than the comparison of each status group separately, and clarified that there definitely was a relationship between high and low status and level of self-esteem. According to Harter (2012), the self of a child in middle school becomes distinguished and integrated by

comparisons with others. Negative effects on the self can arise if the child finds it is not on the same level as its peers (ibid.). It is possible that if a child experiences that friends have better relations to others and family, are more attractive, are more skilled and talented, or seem to be better off psychologically, the child starts to question its own capabilities and self-worth. This can in turn lead to low self-esteem. Low status children might find themselves on different levels compared to their high status peers, and that could contribute to the differences in self-esteem between the different status groups. Moreover, discrepancies between the actual self, the ideal, or the ought self can lead to depressive affect or anxiousness (Higgins, 1987). It is possible that discrepancies are more common among low status children than among high status children. That is, low status children might experience that they do not live up to their own ideal of who they would like to be, or who they should be. Taken together, discrepancies could be reflected in low levels of self-esteem.

The popular group scored the highest on the subscale of relations to others, and the popular group differed significantly from the neglected group. The effect size was .09, which means that social status explained 9 percent of the variation in self-esteem in terms of relations to others. Relations to others was the subscale which explained the most of the variance of self-esteem, and the result signifies the importance of social relations in children's lives. The impact of social relations on the creation of the self has been emphasized by early theorists such as James (1950) and Mead (1976), and modern researchers such as Harter (2012) and Baumeister and Twenge (2003). Followed by the rejected, the neglected scored the lowest on relations to others. This relationship was also found by Jackson and Bracken (1998) and it confirms the outstanding social skills of popular children and the less successful social skills of neglected and rejected children. Coie (1983) observed that neglected children spend more time in solitary play. If neglected children experience that they are excluded socially, feelings of isolation, depression, and anxiety can arise (Baumeister & Leary, 1995). This could affect the overall low self-esteem of the neglected group compared to the popular group. Most researchers agree that both the incidental model and the causal model of social adjustment are valid (Hartup, 2009). Social adjustment is reflected both in the quality of peer relations (the incidental model), and the quality of peer relations do directly influence social adjustment (the causal model) (Parker & Asher, 1987). These models could be applied to the results of the present study where the importance of social relations has been presented. It is possible that participants' scores on relations to others, was both a reflection of quality of relationships and that relationships directly influenced self-esteem. Further, there was also a significant difference between the high status and the low status groups with the same effect

size as for the six different status groups. That is, high and low social status explained 9 percent of the variation in level of self-esteem in terms of relations to others.

When comparing the high status and the low status groups on the subscale of psychological well-being, the high status group scored significantly higher. High and low status explained 6 percent of the variations in psychological well-being. The difference between all status groups came close to statistical significance, and the difference was the greatest between the popular and the rejected group. The rejected group scored lower than any other group on this subscale. Litwack, Wargo Aikins, and Cillessen (2012) found that sociometric popularity was related to more reciprocal friendships and less conflict, and that this in turn guarded against depressive affect and lead to higher levels of self-esteem. Hence, it is possible that the high score of the popular group on psychological well-being was mediated by high scores on relations to others. Moreover, it could be that the low score of the rejected group on psychological well-being was mediated by low scores on relations to others.

A statistically significant difference was found on the subscale of relation to family for the high status and the low status groups, where the high status group scored higher. 7 percent of the variation was explained by social status. Research has shown that level of self-esteem is related to how supportive parents and significant others are – high levels of support is related to high levels of self-esteem, and low levels of support is related to low levels of self-esteem (Harter, 1999). Harter (2012) argues that the child experiences authenticity when he or she is appreciated and accepted for the core of the true self. Speculatively, the low status group experiences more difficulties with family relations than the high status group, and this is reflected in lower levels of self-esteem. Moreover, it is interesting to relate this to attachment theory, the foundations which are laid already in early childhood. Secure attachment is characterized by trust in others and the ability to create lasting relationships (Broberg et al., 2010). Ambivalent attachment is characterized by a reluctance to come close to and trust others, and people with avoidant attachment can have problems with intimacy and prefer not to invest too much emotion into relationships (ibid.). Since the high status group scored significantly higher than the low status group on total scale, relations to others, and relation to family, perhaps there are more securely attached children in the high status group, and more ambivalently and avoidant attached children in the low status group. That the low status group scored low on the subscale of relation to family could support this idea.

A significant difference was found on the subscale of physical abilities for the high and low status groups. The effect size was small though – 5 percent of the variation was explained by high or low status. Even though there was a significant difference, the subscale

of physical abilities did not dominate as previously demonstrated by Jackson and Bracken (1998) and Harter (2012). According to Nelson (2000), current ideals in society, such as beauty and youth, influence the development of the self. The results of the present study confirm Nelson's (2000) argument, that physical abilities do influence how children view and appreciate themselves, but the effect was not as outstanding as in previous research.

No significant differences were found on the subscale of skills and talents. This was surprising since previous research has emphasized the importance of self-concept concerning academic achievements (Jackson & Bracken, 1998). Zettergren (2003) also found that popular boys and girls in Sweden were academically superior and scored higher on intelligence tests (academic self-concept was not investigated though). Perhaps this represents a reflection of cultural differences between the USA and Sweden. In Sweden, high ability students might not want to exhibit their superiority – people in general do not want to stand out from the crowd – something which could be a reason for why popular children's self descriptions regarding skills and talents are toned down.

*Relation of self-rated self-esteem and peer descriptions.* According to Moreno (1934) acceptance and rejection do not only make up the basis for how an individual perceives herself, but also for how other people come to perceive that individual. The result showed that participants' perceptions of their peers were related to individuals' perceptions of their own self. Scores for self-rated self-esteem and peer descriptions were significantly related, and hypothesis 2 should therefore be kept. This signifies that acceptance and rejection influence how children come to perceive and describe their peers. Interestingly, those who described peers whom they seldom spent time with (negative nomination) managed to do so more in line with the peer's self-rated description, than those who described peers they gladly spent time with (positive nomination). The strength of the correlation of positive nominations was only small, while the strength of the correlation of negative nominations was medium. The correlation was the strongest for the subscale of relations to others for both groups. However, while the negative nomination group managed to explain 12,67 percent of the variation on peers' subscale of relations to others, the positive nomination group only managed to explain 4,12 percent. The trend was similar for the other subscales as well. How come peers one seldom spend time with manage to portray a picture of a peer that is more similar to how that peer describes herself, than peers one gladly spend time with? Do peers who gladly spend time with each other hold an unrealistically positive picture of their friends? Perhaps it is so. Cognitive dissonance is a phenomenon used to describe how people reason and legitimize their thoughts, feelings, and actions (Passer & Smith, 2009). If a friend is behaving in ways

one knows a good friend should not, cognitive dissonance emerge. Why do I spend time with someone who is not a good friend? To reduce the dissonance individuals exaggerate the positive sides of friends. Another point of view could be that children appreciate and see their friends' positive characteristics, while the friends themselves are more self-critical.

### *Discussion of methods*

*Participants.* The present study had a fairly high number of participants which contributes to the reliability of the results. However, in each status group the number was somewhat low. More participants would have allowed for larger groups of different sociometric statuses, which in turn could increase the reliability. The reliability of the social status classification procedure would also increase if there were higher participation rates in the classes, and the distribution of statuses would come closer to the distribution indicated by previous research.

There was a quite large percentage (30%) of attrition. The most common reason for not participating was that the letter of informed consent was not brought back to school. Three of the participating classes received the letter of informed consent the day before they went on a one week holiday, so it is possible that the letter was misplaced or simply forgotten about. One should also note that in the study by Ouvein-Birgerstam (1999) it was found that those who chose not to participate or did not finish the test had lower levels of self-esteem and psychological well-being. The risk that the attrition has influenced the result cannot be eliminated.

The participating schools were located in different areas in the south of Sweden which contributes to both a geographical spread and varying city sizes. Participants were almost evenly distributed between year 4 and year 6, and both genders were about equally represented. This holds for a credible reflection of the gender representation in Swedish schools. The interest in the research varied among the participating schools. Some teachers were very interested in the study and keen on getting as many of the students to participate as possible. This sort of engagement from teachers can have influenced the number of participating students.

*Materials.* Self-assessment scales are a quite simple and inexpensive way of collecting information about individual's thoughts and feelings. The test "I think I am", used in the present study, is frequently used and has been proven reliable. It is therefore a suitable test for measuring self-esteem. There is a possibility that participants were influenced by the social desirability effect and described their ideal picture of themselves. Even though participants



were instructed to describe who they genuinely were, and ignore what they thought their friends would answer or how they thought they ought to answer, this could not be controlled for.

The sociometric test was designed by Hoff (2012) for the purpose of the study. It was influenced by previous research on the field, and aimed at being as similar as possible. Deep concern was put into ethical considerations and therefore the test did not ask participants to nominate peers they disliked. Most previous research have used questions with opposite wordings, such as "Who do you like to play with?" and "Who do you not like to play with?". The opposite of "gladly spend time with" would be "unwillingly spend time with", but "seldom spend time with" was used instead. It is possible that this formulation does not capture true negative nominations, meaning peers that are not liked. However, it was thought to be that much different from "gladly spend time with" that a clear distinction between the two would be apparent.

A critique to the sociometric classification procedure is that it was a bit troublesome to categorize the participants into different statuses. The procedure for categorization by Coie et al. (1982) was followed, but this procedure leaves some participants unclassified. Those participants who's standardized scores of social impact and social preference did not reach the limits of categorization was put together in a separate group of unclassified participants. Nothing is really known about this group, and Jackson and Bracken (1998) did not find anything in particular special about it. Perhaps these participants could be classified into the already existing status categories, preferably into the average group, even though they do not reach the exact cutoff point. More research is needed to settle upon this question.

The present study did not divide the class into two separate groups along gender, but participants were verbally instructed to nominate peers of the sex they spent most time with. Cillessen (2009) argues that limitations could seriously affect the ability of the sociometric test to capture and reflect true relationships within the reference group. As a result of this, girls were instructed to nominate girls only, given that they spent most of their time with girls, and boys were instructed to nominate boys only, given that they spent most of their time with boys. In case one spent much time with both sexes, participants could nominate both girls and boys. Not too much weight was put on this in the instructions, actually, it was just mentioned verbally and not at all in the written instructions. It was considered more important to allow participants to nominate whomever they wanted in the reference group in order to reflect the true relationships of the peer group, and not induce too large restrictions that could change the nature of the group.

The sociometric test added a third twist to the study by letting the participants describe each of the nominated peers on an 8-item assessment scale. The statements were either inspired by or taken directly from the statements in "I think I am", and covered for three of the five subscales: psychological well-being, skills and talents, and relations to others. Favorably, more statements should have been used to increase the reliability of the measurement. Nonetheless, it was important to create a test which did not demand too much effort from the participants. The descriptions still give an indication of how peers are viewed by one another.

*Procedure.* The same procedure was followed at every administration; the same information was given before and after the test, it was administered in the participant's classroom during school hours, and the teacher and classmates were present. The author and an assistant were always present in order to answer questions and to quickly go through the questionnaires when the participants were finished. In this way, the number of incomplete questionnaires decreased. Overall, disturbing variables were kept under control.

#### *Ethical considerations*

First of all, all participants in the study were granted permission to participate from their legal guardians. This was of course necessary since the participants were children and young adolescents. Moreover, it was considered important that legal guardians were informed about the nature of the study in case any participant experienced any discomfort as a result of participating. In order to make comparisons between sociometric status and self-esteem participants had to write their names on both forms. As a consequence, participants might start to worry about whether their anonymity will be guaranteed, and perceive the situation as intimidating. To handle this situation, participants were ensured of their anonymity both before and after the test was completed. Perhaps the most optimal way to diminish any possible discomfort would have been to convert all names into numbers beforehand. In that way, no one would have to write down their own name or anyone else's name on the forms. However, this proceeding was considered too complex and too time consuming to go through with. Instead, extra weight was put on ensuring the anonymity of the participants. Further, Ouveinen-Birgerstam (1999) did not find any differences between a group of anonymous participants, and participants who stated their names, in scores on "I think I am".

*Sociometric test.* Deep concern has been put into constructing a sociometric test which would not cause any possible harm to the participants. One has to avoid using any material that could be perceived as offending, and be especially cautious when participants are children and adolescents. Using negative nominations can be a sensitive way of examining

social status, and for that reason, instead of asking participants to nominate peers they do not like to spend time with, the test asked the participants to nominate peers they seldom spent time with. This alternative wording was regarded as likely to reflect negative relations in the peer group anyways. Participants were also asked to nominate peers they gladly spent time with. Potentially, these nominations could reflect a wish of a certain relationship. That is, participants could nominate peers that the participant did not actually spend time with, but peers whom the participant would like to spend time with. This possibility was consciously created in order to allow participants who did not have any clear positive relationships within the peer group to be able to complete the test. Participants were also instructed to respect each other's privacy and not peek on anyone else's answers, as well as not to discuss with each other whom they had nominated.

A few studies have looked into the ethical dilemmas of sociometrics and none of them have shown results of negative effects among peers after the administration. These studies indicate that sociometric tests with negative nominations do not cause participants any more discomfort than they would encounter in their everyday lives. Hayvren and Hymel (1984) observed behavioral peer interactions among preschool children before and after sociometric testing, and found no differences in frequencies of negative interactions with liked most peers and liked least peers. Iverson, Barton and Iverson (1997) interviewed children in middle school after the administration of a sociometric test and found that no child described any feelings of hurt nor knowledge of any one in the peer group feeling offended by the test. Similar results have been found in studies by Bell-Dolan, Foster, and Sikora (1989), and Bell-Dolan and Foster (1992). The results of these studies seem promising, but due to restricted possibilities of generalization, and the fact that there is such a limited selection of research on the topic, one should still go on cautiously when employing sociometric research.

*Self-concept test.* The statements that made up the self-concept test concerned the five different aspects of the self identified by Ouvinen-Birgerstam (1999). Some statements were formulated positively and others negatively. Some teachers expressed a concern that these type of questions could set off thought processes within children and cause distress. However, the author reasons that the test measures thoughts and ideas which already exist within the individual, and that asking questions about self-esteem cannot cause an individual to develop negative feelings towards herself. Further, if potential distress came to light, that individual could gain aid and support from grown-ups in its surroundings. In order to make the participants feel more comfortable responding to these statements, they were reminded of their anonymity, that participation was voluntary, and that some of the question would be

more difficult to respond to. It is also important to remember that research in the field can lead to a greater understanding of how children and young adolescents appraise themselves, and in extension, make it possible to work actively with preventing ill health.

#### *Future research*

Further research is needed in order to get a clearer picture of exactly how social status and self-esteem are related. Peer social status could be investigated using ratings by teachers, objective observers, and self-ratings, as a compliment to peer-ratings, to broaden the appreciation of social status in the classroom. Moreover, an investigation of social status in areas other than the classroom could provide more diverse insights into this phenomenon.

Relations to others seem to influence both social status and self-esteem, and it would be interesting to explore what causes sound relationships to others. Research on this topic is important as it might help unravel some part of the complex social world of which children are part, and contribute with new insights on how to take action against social exclusion and bullying in school.

It would also be interesting to further investigate why the negative nomination group described peers more similarly to the peers themselves than the positive nomination group. Qualitative interviews could make that possible. Further, relations of positive and negative peer descriptions could be investigated in light of social status. Is there a difference in how children of high and low status describe their peers? Could it be that children with low status exaggerate the negative in friends they do not spend much time with in order to compensate for their low levels of self-esteem? An interview could also give the participants the possibility to explain how they reasoned when they nominated peers, both positively and negatively. That would sort out the question of how "seldom spend time with" was interpreted.

#### *Conclusion*

In conclusion, the present study investigated the association between peer social status and self-esteem among Swedish middle school students, and found that the two are related. Social status was related to overall level of self-esteem, and the popular status received the highest scores and the rejected group the lowest. The subscale of relations to others stood out, explaining the most of the variance in self-esteem of the subscales. Moreover, the high status group experienced higher levels of total self-esteem, as well as on relations to others, psychological well-being, relation to family, and physical abilities, compared to the low status

group. The study also showed that descriptions of peers are more similar to the peer's own description when he or she is negatively nominated, than positively.

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## Appendix A. Demographic variables form

Jag är:                      kille                       tjej

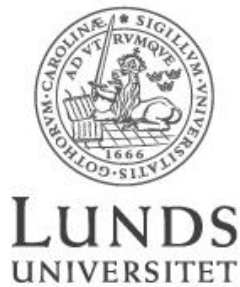
Jag går i årskurs \_\_\_\_\_

Hemma talar jag *oftast*:                      svenska                       annat språk

Om du oftast talar ett annat språk hemma, vilket är det? (frivilligt att fylla i)

\_\_\_\_\_

## Appendix B. Letter of information for principals and teachers



Institutionen för psykologi

Hej

Lund, 28 september 2012

På Lunds universitet pågår ett forskningsprojekt om barn och ungdomars självbild. Forskningen drivs av docent Pirjo Birgerstam och fil. dr. Eva Hoff. Inom forskningsprojektet planeras en uppföljning av en stor studie som gjordes för 30 år sedan om barns och ungdomars självkänsla. Inom ramen för denna uppföljning kommer information om självkänsla att samlas in bland elever i årskurs fyra och sex. Jag, Else Sveningsson, psykologistuderande vid Lunds universitet, kommer att utföra arbetet.

Jag uppskattar om jag kunde genomföra undersökning i Ert rektorsområde. Detta skulle i så fall innebära att jag vid ett tillfälle under början av november besöker några olika klasser på Er skola. Eleverna kommer att få fylla i två formulär: ett formulär om självkänsla och ett om kompisrelationer. Det kommer att ta en halvtimmes tid i anspråk. Vårdnadshavarna kommer att informeras och få fylla i sitt medgivande. Det är naturligtvis också frivilligt för eleverna att medverka. Eleverna såväl som skolorna kommer att vara anonyma i studien, och den information jag erhåller kommer att behandlas konfidentiellt.

Om ni är intresserade finns det möjlighet att ta del av resultaten när uppsatsen är färdigställd.

Jag kommer att ringa Er inom den närmaste tiden för att höra om ni är intresserade. Jag tackar på förhand och ser fram emot ett gott samarbete.

Med vänliga hälsningar

Else Sveningsson

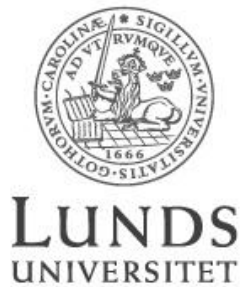
Om ni har några frågor eller funderingar:

Pirjo Birgerstam, docent, leg. psykolog  
E-post: [pirjo.birgerstam@psychology.lu.se](mailto:pirjo.birgerstam@psychology.lu.se)  
Telefon: 046-222 33 94

Eva Hoff, fil. doktor  
E-post: [eva.hoff@psychology.lu.se](mailto:eva.hoff@psychology.lu.se)  
Telefon: 046-222 87 67

Else Sveningsson, psykologistuderande  
E-post: [else.sveningsson.262@student.lu.se](mailto:else.sveningsson.262@student.lu.se)  
Telefon: XXXX-XXXXXX

## Appendix C. Letter of informed consent



Institutionen för psykologi

Lund, 7 december 2012

Hej

Hur ser våra barn och ungdomar på sig själva idag? Har de en mer positiv syn på sig själva idag än vad barn och ungdomar hade förr? Vi driver ett forskningsprojekt vid Lunds universitet som försöker få svar på dessa frågor. Vi som leder arbetet är Pirjo Birgerstam och Eva Hoff och forskningsassistenten som samlar in frågeformulär är psykologistuderande Else Sveningsson.

Vi vill informera Er om att vi kommer att besöka Ditt barns klass för att dela ut två formulär. Ett formulär handlar om hur Ditt barn beskriver sig själv. Det andra formuläret handlar om hur Ditt barn beskriver sina kompisar. Sammanlagt kommer detta att ta en halvtimme att fylla i. Det är frivilligt för barnen att delta, och de som fyller i formulären är anonyma. Ingen kommer att få veta vad just Ditt barn svarat.

Vi vänder oss nu till er med barn på XX-skolan för att fråga om Ert barn får delta i studien. Barnen kommer själv att få bestämma om han/hon vill delta när vi besöker skolan och han/hon får avbryta sin medverkan när han/hon vill. Om Ni har några frågor eller undringar så är Ni välkomna att kontakta oss.

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**Barnets namn**

i studien om barns självbild och självvärdering. Vänligen svara senast den **14 december!**

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**Förälders/vårdnadshavarens namnteckning**