

# Perceived Interpersonal Relations in Adolescence

Camilla Hakelind



Department of Psychology

Umeå University, Umeå, Sweden

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## Abstract

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The general objective of this thesis was to examine aspects of adolescents perceived interpersonal relations, in view of the association between adolescents' interpersonal problems and self-concepts, and considering influential factors such as behavioural problems, depression, perceptions of parental rearing styles, type of relationships and sex. All of the studies examined participants from the four-year longitudinal research project in Umeå, which was designed to investigate the psychic health and social context of adolescents with psychological and antisocial problems (Armeliuss & Hägglöf, 1998), except for the normal adolescents in study I, who took part in a project with purpose to determine norms for an intake interview that is used for adolescents in different settings in Sweden. Study I addressed the impact of type of relationship on adolescents interpersonal behaviour, and the results were discussed in terms of interpersonal theory and the complementarity principle. Study II investigated the association between self-concept and interpersonal problems in normal adolescents. Different interpersonal problems were systematically related to three self-concept patterns, and showed the importance of considering the combination of self-love and self-autonomy to understand interpersonal problems in adolescents. In study III the associations between self-concept, and interpersonal problems were investigated, also considering depression as a factor, in a group of adolescents with conduct problems. This study revealed sex differences: boys' interpersonal problems mainly were associated with self-control, an imbalance between self control and autonomy, and depression, whereas girls' interpersonal problems mainly were associated with low self-love and depression. Study IV examined the relationship between memories of perceived parenting styles and interpersonal problems. Also in this study, sex differences were shown. It was found that for boys the perceived parenting styles of the fathers had the strongest associations to interpersonal problems, and for girls the perceived parenting styles of the mothers had the strongest associations to interpersonal problems.

Key words: adolescents, interpersonal relations, interpersonal problems, self-concept, parental rearing styles, conduct disorder, depression

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Umeå, December, 2007

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## List of papers

Interpersonal relations in normal and antisocial adolescents

This doctoral thesis is based on the following articles.

- I Armelius, K., & Hakelind C. (2007). (in press). Interpersonal Complementarity –Self rated Behaviour by Normal and Antisocial Adolescents with a Liked and Disliked Peer. *Interpersona*.
- II Hakelind, C., Armelius, K., & Henningsson, M. (submitted). Relationship between Self-Concept and Interpersonal Problems in Normal Adolescents.
- III Hakelind, C., Henningsson. M., & Armelius, K. Interpersonal problems, Self-concept and Depression in Adolescents with Conduct problems.
- IV Hakelind, C., Henningsson, M., & Armelius K. (submitted). Perceived parental rearing style and interpersonal problems in adolescents

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*“Each of us is largely who we believe ourselves to be.”*  
(Villard & Whipple, 1976).

## Introduction

Adolescence is a transitional period in the development from child to adult. Families are often thought to influence social development, and parental rearing is traditionally seen as a factor that explains behaviour problems. However, during the adolescent period, young people become increasingly independent from their parents, and people outside the family become important for emotional adjustment and well-being. In general, a good relationship with others is related to well-being and is a predictive factor for social adjustment. It is thus very important for adolescents to establish and maintain good interpersonal relationships.

A trend is that adolescence research has become more relational (Collins & Steinberg, 2006), and although research has continuously emphasised parenting and parent-adolescent relationships, gradually these relationships have been considered in the context of or related to other relationships such as parent influences on peer relationships. Additionally, the interest in extending attachment theory beyond infancy has led to research examining adolescents' representations of relationships with parents, peers, and romantic partners (Smetana, Campione-Barr & Metzger, 2006).

Until now, there is no consensual definition of the terms self or relationship, although this area of research is presently receiving more attention. Phrases such as self in relationship as well as relational self are becoming progressively more popular. This shows the growing interest of how the self influences relationships and vice versa (Finkel & Vohs 2006).

## Adolescence

There are numerous reasons for studying adolescents. The notable physical growth and the other bodily changes that characterize adolescence combined with the many individual, cognitive, social, and contextual transitions that occur during this period are a few examples of themes that have motivated researchers to study adolescents (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). Most people would agree that adolescence is an important developmental period, a transitional phase when childhood is coming to an end and a new, more

autonomous period are starting. Important choices are being made during adolescence, choices that sometimes affect the entire life as a grown up person. Many of the roles in the home and outside of the home are being altered. New types of relationships become salient and social life is changing. The adolescent period is the time of identity formation and liberation from parents, followed by a new way of relating to them. It is a time when they define themselves and the future becomes a part of their conscious world. However, for example, Eriksson (1968) and Marcia (1980) looked at adolescence as an especially sensitive period and time of development through crisis. Kegan's (1982) theory notes that the individual develops his or her identity through social interacting and a growing understanding of the self and relationships. For most adolescents, this transition works out smoothly and without larger problems. For the most part, adolescents adjust well to the "growing up challenge", but for some adolescents this is a difficult time. It is a time of criminality, drugs, and psychological problems, a time with severe conflicts in the relations with the adult world and even with peers. These types of problems are often called conduct or behavioural problems.

## Conduct problems

Conduct problems usually result in poor academic results for the adolescent, and often cast long shadows into adulthood. Some individuals who display conduct problems in adolescence have further criminal careers in adulthood (Blumstein, Cohen, Roth & Visher, 1986). The prevalence of conduct disorder is higher for boys than for girls, and much research has focused on boys, yet conduct disorder is the second most common psychiatric diagnosis in adolescent girls (Capaldi & Shortt, 2003).

Conduct disorder is a term used to describe persistent patterns of conduct problems that violate social rules and basic rights of others. In the American Psychiatric Association (1994) Diagnostic and Statistical Manual of Mental Disorders (DSM IV), Conduct disorders include six different diagnoses: Conduct problems (involving isolated acts), Adjustment disorders with or without emotional disturbance (in response to recent stressors), Disruptive behaviour disorder, Oppositional defiant disorder (a pattern of negativistic, hostile and defiant behaviour lasting at least six months), and Conduct disorder (a repetitive and persistent pattern of behaviour in which the basic rights of others or major social norms or rules are violated). Conduct disorder behaviours comprise

aggression towards people and animals, deceitfulness, theft, destruction of property, staying out at night at an early age, and truancy.

Conduct problems were significantly associated with depressive symptoms in a study of adolescent boys by Capaldi (1991). At the same time, according to a review by Keenan, Loeber, and Green (1999), girls with Conduct disorder seem to be at risk for developing comorbid conditions, especially internalizing disorders. Moreover, in a review of clinical studies it was assessed that one-third of adolescents with major depression also had a diagnosis of conduct or related disorder. This appeared to be similar for boys and girls (Kovacs, Paulauskas, Gatsonis, & Richards, 1988). An overly represented group regarding interpersonal problems is boys and girls with conduct disorder, a clinical syndrome that often co-occurs with depression (McCracken, Cantwell & Hanna, 1993). It seems that these syndromes are associated with a number of other problems. For example, depression, conduct, and comorbid disorders are frequently associated with low social competence and depressive disorder is associated with low self-esteem. (Renouf, Kovacs, & Mukerji, 1997). Adolescents with both depression and conduct problems may additionally be at risk for substance dependence, maladaptive peer relationships, as well as other problems (Marmorstein & Iacono, 2001). Depressed adolescents both have more negative perceptions of themselves and of their relationships with others (Carbonell, Reinherz, & Giaconia, 1998).

## Interpersonal theory

The interpersonal theory, a theory with focus on relationships, was founded on the interpersonal theory of psychiatry, as expressed by Harry Stack Sullivan (1953). The original set of interpersonal variables was accumulated from observing the overt behaviour of patients in psychotherapy, an approach that was used to define interpersonal mechanisms. However, the breakthrough of the interpersonal theory didn't come until 1957 (Strack, 1996). The same year Timothy Leary first published the book *Interpersonal Diagnosis of Personality*, in which it was stated that personality is an inextricable part of a larger social system. He also declared that normal and abnormal personalities are linked together on a continuum and that personality styles are functionally interrelated in a circular order. In this book, Leary actually proposed five levels to personality. Level one refers to what people do in social situations (actual behaviour), something that is called interpersonal mechanisms. Level two refers to perception of self and perception of others, also called interpersonal traits. Level three refers to the symbolic and preconscious

aspects of interpersonal perception and level four refers to the unconscious aspects. Level five refers to ego ideals (Leary, 1957). Most latter theorists have focused on the first two levels, and these two will also be the focus of the present thesis.

## **Circumplex models**

Trying to catch personality and the complexity of relationships, there has been a tradition of using circumplex models within the interpersonal theory. The circumplex reflects certain elements of relations or interactions using the notion of similarity and polarity. Statistically, the correlations between these elements must show systematic increases or decreases in degree of correlation. The correlations depend on the amount of conceptual closeness and their degree of polarity between the variables. Opposites are represented by a  $-1.0$  correlation, and independent or unrelated elements are represented by a  $0.0$  correlation. Similar elements are characterized by positive correlations. To decide the two major independent axes, factor analyses are frequently used. The factor loadings of the other variables can subsequently be plotted around these axes (Plutchik, 1997). The first interpersonal circle, later called the interpersonal circumplex, was developed by Freedman, Leary, Ossorio, & Coffey (1951). The interpersonal circumplex may be regarded as a structural organization of the interpersonal domain (Gurtman, 1994; Pincus, 1994). It illustrates a range of possible interpersonal tendencies in a circular continuum. Each point on the circle can be translated in terms of the interpersonal coordinate system based on the two independent axes of dominance and love. These axes can also be regarded as latent variables. The earliest circumplex was also marked by intensity values increasing from the midpoint of the circle. For this reason, it could be considered a two-dimensional Euclidian space, where variables located at the opposite of each other are bipolar contrasts (Pincus, 1994).

## **The Inventory of Interpersonal Problems (IIP)**

One of the circumplex models that have been developed is the circumplex of interpersonal problems. The purpose was to develop a measure of interpersonal distress that could be used to evaluate clinical change. The researchers started out recording every interpersonal complaint that was made during intake interviews, beginning with “I can’t do something” or “I can’t stop doing something”. From this type of

empirical investigation, the most common ways that patients express problems were extracted. The final list of problems enclosed 127 items and was named the Inventory of Interpersonal Problems (IIP). Horowitz, Rosenberg, Baer, Ureño, and Villaseñor (1988) developed this questionnaire and investigated psychometric properties and clinical applications. Factor analyses of these items IIP yielded six subscales that showed high internal consistency and high test-retest reliability. The test's sensitivity to clinical change was higher than the SCL-90, a test that was put side by side of the IIP.

The IIP has also been compared with the Interpersonal Adjective Scales (IAS –R) by Alden, Wiggins, and Pincus (1990). They constructed the 8-item circumplex scales (Figure 1) which have shown to exhibit satisfactory internal consistency and stability in both content and structure across three university samples. When the circumplex analysis was used, two dimensions emerged: the dominance-submissiveness axis and the nurturance-coldness axis. These are considered the problem-dimensions that most often are found to underlie interpersonal problems. When convergence between the IIP and the IAS-R was made, it was found that both measures shared a circular space. Although they do not overlap completely, a strong similarity was found. The authors suggested that the IIP circumplex scales may be useful for both research and diagnostics (Alden et al., 1990).

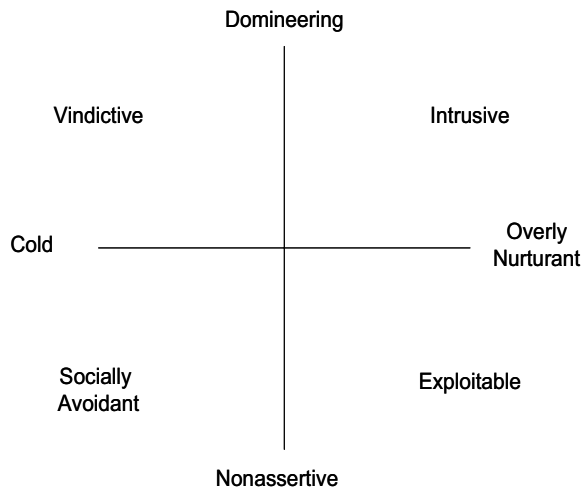


Figure 1. Circumplex model of Interpersonal problems with the eight-item subscale.

The IIP has since then been widely used for psychotherapy outcome studies (e.g., Lambert, Horowitz, & Strupp 1997; Puschner, Kraft & Bauer, 2004; Riuz et al., 2004; Vittengl, Clark, & Jarrett, 2003). It has also been used in studies of attachment styles and how these are related to interpersonal problems (Bartholomew & Horowitz, 1991) and in studies investigating both attachment styles and outcome in therapy (Horowitz, Rosenberg, & Bartholomew, 1993).

## **Structural analysis of Social Behaviour (SASB) and Self-Concept**

Another circumplex model is the SASB model, which is an extensive elaboration of the models of interpersonal behaviour that was originally developed by Schaefer and by Leary. The model, introduced by Benjamin (1974), is structured on three surfaces, which in the article are called parent-like, child-like, and introject. These surfaces reflect an active-passive dimension, with the active represented by the parent-like surface, dealing with concerns with other, and the passive represented by the child-like, dealing with concerns for the self. The parent-like and the child-like surfaces describe interpersonal behaviour, while the introject surface describes intrapersonal behaviours, directed towards the self. The idea is that how one has been treated by others is introjected and becomes attitudes towards the self. The three surfaces later became labelled foci with the subtitles acting, reacting, and introject. The first focus (acting) describes actions from one person to another person (i.e., a transitive focus). The second focus (reacting) describes reactions to another person's behaviour (i.e., an intransitive focus). The third focus (introject) describes a person's behaviour towards the self (introject) (Erickson & Pincus, 2005). The model was built on two axes. The horizontal was named affiliation and was defined by the poles of love and hate. The vertical was named interdependence and the poles are in the parent-like surface called dominate and emancipate, while in the child-like plane they are called submit and to be emancipated. The structural analysis of social behaviour model is supported by the correlations, circumplex analyses, and factor analyses made in the study. There are variations of the SASB model that differ in degree of precision. The most commonly used model is the simplified cluster model (Figure 2) (Benjamin, 1996b). According to this model, friendly and moderately enmeshed or moderately differentiated behaviour is normal. This domain of points is called Attachment Group

(AG). It represents an optimal position in relation to others, while behaviours that are hostile and moderately enmeshed or differentiated are pathological and is called Disruptive Attachment Group (DAG). This interpersonal position does not serve relationships or group processes well, but even hostile behaviour can nevertheless be normal in specific situations since the ability to adapt to the context also is one of the things that define normality. Benjamin (1996a) noted that the SASB model defines normality as qualitatively distinct from pathology. Benjamin describes normality as flexibility and stability, not being too chaotic or too rigid.

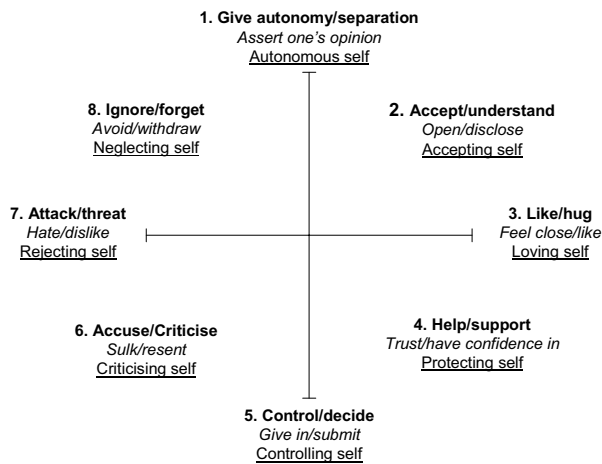


Figure 2. The cluster version of SASB, showing the three foci: acting (in bold), reacting (in italic), and introject (underscored).

The SASB model, using the SASB self-rate questionnaires, enables researchers to study people's self-concept. The SASB model has been used in a number of studies in many different areas, such as therapy process and outcome, diagnostic studies of psychopathology, sports psychology, personality psychology, and family processes (see Benjamin, 1996b, and Benjamin, Rothweiler, & Critchfield, 2006, for an overview of studies with the SASB model). With samples of adolescents and young adults, SASB has been used to study the relation between family processes and adolescents' problematic behaviour and symptoms (Florsheim, Henry & Benjamin, 1996; Ratti, Humphrey & Lyons, 1996). SASB has also been used to compare how adolescents with antisocial problems differ from normal adolescents in their perception of their mother and father (Östgård-Ybrandt & Armelius, 2004), and how adolescents' self-image is

related to well-being and psychological functioning (Adamsson, 2003). Conroy (2003), using SASB to study fear of failure in adolescents and young adults, showed that a hostile self-concept paralleled how the participants felt that others had treated them. Östgård-Ybrandt and Armelius (2003) found that adolescents with social problems had a self-concept that differed in many ways from that of a normal group of adolescents, incorporating both high self-neglect and high self-criticism. Swift, Bushnell, Hanson, and Logemann (1986) showed that female adolescent anorexics had a self-concept pattern of high self-control combined with high self-attack.

When self-concept is described in terms of self-esteem, numerous studies have shown that high self-esteem is related to fewer problems with others (see Dekovic & Meeus, 1997; Kaplan, 2004). It has been argued that a multidimensional definition of self is necessary to capture both adolescent's views of themselves and the ways in which this self-concept is related to different kinds of problems (Bacchini & Maglinulo, 2003; Marsh, Parada, & Ayotte, 2004). The SASB model facilitates a systematic description of interpersonal behaviour. It also enables us to describe both own and other's behaviour using the same model. The model also makes it possible to use some interpersonal concepts such as complementarity to describe and predict interpersonal behaviour.

### **“A gift of love”**

As with many others, Benjamin (1996b) believes that attachment is central to development, and it can be coded around the affiliation axis. Benjamin (1996a) portrays the thoughts that both the theorists Sullivan and Leary had stated before her. They all claim that psychiatry is the study of interpersonal relationships. Furthermore, Benjamin writes that “every psychopathology is a gift of love” meaning that personality is formed by social learning. The child's strive for love and acceptance from attachment objects makes them use the copy processes that Benjamin calls identification, recapitulation, and introjection. Identification means to act like your caregiver. Recapitulation is to act as if your caregiver is still there. Introjection is to treat yourself as your caregiver did. These processes reinforce the patterns of personality, so that maladaptive behaviour can be transmitted directly through social learning with early caregivers, such as parents, siblings, or other important individuals.



## Attachment theory

Shaffer (1993) defines attachment as a close emotional relationship between two persons who share affection and wish to maintain closeness. According to attachment theory, the way a person interacts with others is influenced by that person's relationship with his or her early caregivers. It is assumed that the relationships with these caregivers become internalized as working models (Bowlby, 1973), and thus influences both how the self is perceived and the development of new relationships later in life. According to Bowlby (1969), persons who have a secure attachment take pleasure in their interactions and feel reassured by their partners' presence in times of stress. He additionally proposed that even if attachment-behaviour is especially apparent in the early childhood, it is also manifest throughout the entire life, without there being anything childish or abnormal about it (Bowlby, 1973). By the 1970s, correlation between children's attachment-style and how sensitive the mothers were to their children's needs was found. For example, if the mothers were acting avoidant, the children showed a more avoidant attachment style (Ainsworth, Bell & Stayton, 1971). De Wolff and van IJzendoorn (1997a) made an extensive meta-analysis of parental antecedents of attachment security, in which 66 studies were included. They concluded that in normal settings mothers' sensitivity is an important but not exclusive condition of attachment security and that several other dimensions of parenting are equally important. The above-mentioned researchers also made a meta-analysis of infant-father attachments. They noted that the research on the fathers in this area is very scarce. However, their meta-analysis shows that there are also associations between paternal sensitivity and infant-father attachment (De Wolff and van IJzendoorn 1997b).

## Interpersonal behaviour and complementarity

Interpersonal behaviours are referred to as the actions that people perform in relation to other persons. However, the focus is not on the individual, but on the systematic transactions between people. Furthermore, interpersonal behaviours are not considered to be only responses to stimuli, but also certain behaviours tend to draw specific reactions from other people. People seek reactions from others that confirm or validate their own self-perceptions. This is a way people fulfil their basic interpersonal needs. These basic needs are the need for control

(power and dominance) and the need for affiliation (love and friendliness) (Kiesler, 1996).

The thought that interpersonal behaviour is not random, instead certain behaviour tends to bring out another in a rather predictable way, is the theory of complementarity and reciprocity. Most of this goes on automatically. An interpersonal behaviour and its most probable interpersonal reaction are said to be complementary. Furthermore, to be called complementary, the interactions need to be reciprocal in terms of control and corresponding in affiliation (Kiesler, 1996). For example, the most complementary act to a dominating behaviour is a submissive behaviour, and the complementary behaviour to emancipate is to be emancipated. Hostility is the complementary act to hostility (and friendliness draws friendliness). People elicit specific behaviour from others through their actions, but “one member of a complementary pair is not more “responsible” for the combination than the other” (Benjamin, 1996b, p. 396). It is clearly stated that complementarity is not a description of fixed traits or roles and that a person, for example, can be dominant in some circumstances and submissive in others. A complementary behaviour will only occur when it (in addition to keeping the relation in harmony) serves the purpose of self-definition and self-presentation (Benjamin, 1996b). For example, if a person responds to another with actions corresponding to affiliation but not reciprocally to control this, behaviour is defined as complementary. When a person acts to some else in a way that is both non-corresponding to affiliation and non-reciprocal in terms of control, this behaviour is called anticomplementary. Anticomplementary personalities tend to be generally devalued more than complementary, and they are also more likely to be avoided or ignored by others. Relations characterized by complementary interactions tend to be stable, complementary relations tend to be unstable or in change, while anticomplementary relations have a tendency to lead to avoidance or escape actions, thus they are also unstable and are likely to terminate (Kiesler, 1996).

A number of studies have found support for the complementarity principle. Many of these early studies have been in the context of psychotherapy. For example, Dietzel and Abeles (1979) found that therapist complementarity varied over sessions in a systematic way. Kiesler and Watkins (1989) showed that therapist complementarity was associated with both patient's and therapist's perception of working alliance. Tracey and Hays (1989) found that more experienced therapists showed lower complementarity for hostile-dominant stimuli compared to less experienced therapists who thus were more “drawn into” the patient's

negative relational style. The principle of complementarity seems to hold also in other contexts (Strong et al., 1988; Bluhm, Widiger, & Miele, 1990). While there is clear support for complementary behaviour on the affiliation dimension (friendly behaviour tends to pull for friendly behaviour and hostile behaviour pulls for hostile behaviour), the results are less consistent for dominant-submissive behaviours (see Sadler & Woody, 2003). However, Sadler and Woody (2003) made elaborate tests of the complementarity principle in mixed-sex adult dyads and found clear support for complementarity on both the affiliation and dominance dimensions. They also found very small gender differences in complementarity.

## Personality in Interpersonal theory context

Historically, personality has typically been seen as a quality that exists within a person. One of the most influential contemporary models of personality, Eysenck's three-dimensional model follows this tradition. In this model, each dimension is believed to reflex inherited biological mechanisms that control the activation of elements in the autonomic nervous and endocrine system (Eysenck & Eysenck, 1985). However, personality is, regardless of theory, by nature a hypothetical construct conditional of observable behaviour. An interpersonal approach to personality put emphasis on the transactional processes of behaviour between people instead of on the entirely internal determinants of behaviour. What a person becomes is an interpersonal achievement, developed almost completely from the individual's relations with others (Markus & Cross, 1990). The interpersonal transaction cycle is a model that corresponds to the functional relationship between two or more interactants' overt or interpersonal behaviour and covert intrapsychic experiences. This model holds the idea of circular causality; the interpersonal behaviour of each person is simultaneously both a cause and an effect of the behaviour of the other person. The interaction reinforces stable interaction patterns that confirm the individual's self-concept. Interpersonal theorists propose that recurrent patterns of these transaction cycles are central to the development and maintenance of individual differences in personality (Wagner, Kiesler, & Schmidt, 1995).

## Maladaptive Personality

Maladaptive personality disorders are sometimes described as inflexible and maladaptive expressions of personality traits. From the interpersonal perspective, these inflexible and maladaptive expressions of traits consist of both rigid intrapsychic experience (schemas) and the consequential explicit behavioural acts, which are observable in form of maladaptive transaction cycles. According to Benjamin (1974, 1996a), a friendly and moderately enmeshed or moderately differentiated behaviour is normal. It represents an optimal position in relation to the self and others, while behaviours that are hostile do not serve relationships or group processes well. For interpersonal well functioning, it has been found important to have a balanced flexibility between being submissive and domineering in different situations (Florsheim, Henry & Benjamin, 1996). Interpersonal maladjustment, on the other hand, is often primarily described as a rigid and intense or extreme behaviour (Kiesler, 1996).

Personality, according to interpersonal theory, could thus be described as a complex set of intercorrelated intrapsychic and behavioural processes that continue across time and situation. These enduring processes become maladaptive when they are rigid and inflexible, qualities that appear only in the communication between persons (Pincus, 1994).

## Depression

Beck (1967) offers a cognitive theory of depression in line with the reasoning above. This theory implies that maladaptive cognitive schemas are the reason why depressed persons have negative thoughts. As depressed people express their depression to others they often seem to exhibit submissiveness and helplessness, which invites dominating reactions from the other person. This, in turn, can evoke further submissiveness and helplessness in the depressed person, leading to a circle that reflects negatively on the self (Horowitz, Rosenberg & Bartholomew, 1993). The theory about negative circles is supported by a study of the relation between self-criticism, dependency, and depressive symptoms (Shahar, Blatt, Zuroff, Kuperminc, & Leadbeater, 2004). This study gives support for a reciprocal-causality model, suggesting a vicious phenomenological circle between depressive symptoms and self-criticism. However, this was found in adolescent girls, but not in boys. Gore, Aseltine, and Colten

(1993) also found differences between boys and girls in the relation between interpersonal problems and depression.

While it is often assumed that individuals who are psychologically healthy have introjects that are relatively self-accepting and self-nurturing, emotionally disturbed people tend to have hostile introjects that are frequently self-critical and self-destructive. Self-criticism is associated with shame and sadness (Henry, Schacht & Strupp 1990). It has also been shown that problems with self-concept (measured with the OSIQ; Offer Self-Image Questionnaire) are positively correlated with depressive symptoms (measured with the CDI; Children's depression Inventory), a correlation that seems to be stronger for girls than for boys (Erkolahti, Ilonen, Saarijärvi, & Terho, 2003). Both conduct disorder and major depression seem to be associated with high parent-child conflict (Marmorstein & Iacono, 2004).

## Parental rearing style

Modern developmental and personality psychology researchers have focused on the impact of parents and family from several different approaches. Several studies have examined the influence of parental rearing with focus on global measures of parental rearing styles. Generally, these classify parents into different groups that are based on adolescents' perceptions of parenting on certain rearing dimensions. The authoritative style is characterized by a high degree of responsiveness (warmth, acceptance, supportiveness, and nurturing) together with a high grade of demandingness of age-appropriate behaviour. The authoritarian style involves low levels of responsiveness, but high levels of demandingness. The indulgent style involves high levels of warmth and low levels of demandings. The fourth, indifferent parenting style, involves low levels of both the caring dimensions (Maccoby & Martin, 1983). It seems that authoritative parenting is associated with the most positive outcomes, such as better school performance (Steinberg, Lamborn, Dornbusch, & Darling, 1992), coping with stress (McIntyre & Dusek, 1995), better psychological adjustment, and better self-esteem (Lamborn, Mounts, Steinberg, & Dornbusch, 1991).

It has been shown that aggressive individuals remember their parents as more rejecting, overprotecting, favouring, and less warm compared to their better socialised peers, who remembered their parents as less rejecting and warmer (Aluja, Del Barrio & García, 2005). There also seems to exist a relationship between hostility and perceived parenting styles. High hostile participants perceived more rejection and

overprotection and less emotional warmth than low hostile participants. Rejection, especially by the father, was the largest predictor of hostility (Meesters, Muris & Esselink, 1995). Low levels of emotional warmth and high levels of rejection, control, and inconsistency are accompanied by high levels of anger and hostility (Muris, Meesters, Morren & Moorman, 2004).

Positive relationships have been found between anxious rearing, overprotection, and rejection, on the one hand, and children's anxiety symptoms, on the other hand (Muris, Meesters & van Brakel, 2003). Rejection and control in parents is positively related to anxiety and depression (Grüner, Muris Merckelbach, 1999, Muris 2002, Muris, Meesters, Merckelbach & Hülsenbeck 2000).

Although some studies suggest that sex of the children play no relevant role in the matter of rearing styles (Aluja, Del Barrio & García, 2006), few studies have been conducted with that particular focus until recently. Rearing behaviours of the mother and attachment towards the mother has been related to both internalizing and externalizing problems in girls, while rearing behaviours of the father and attachment towards the father has been related to internalizing and externalizing problems in boys (Roelofs, Meesters, ter Huurne, Bamelis & Muris, 2006). It has been suggested that perceived maternal warmth and nurturing may be more important than perceived paternal warmth for the development of self-esteem (Litovsky & Dusek, 1988); however, research on the differential influences of maternal and paternal rearing styles on self-esteem is scarce, why the effect of rearing on self-development is incomplete (Dusek & McIntyre, 2003).

## Peers

Peers play an important role in an adolescent's development from child to adult. During adolescence, peers become increasingly important for emotional well-being, while the parents' role decreases. In the company of peers, adolescents start to separate from their parents and to move into the adult world. Peer relationships are important for psychological health and adjustment in adolescence (Rice & Dolgin, 2002). As shown by Lansford, Criss, Pettit, Dodge, and Bates (2003), positive relations with peers may even moderate the relation between negative parenting and adolescents' negative behaviour.

Many different factors influence peer interactions. One such factor that will influence both feelings and behaviour elicited in different situations is the type of relationship that is involved. For example, reactions to an

anger-provoking situation differ between a close friend and a classmate (Whitesell & Harter 1996). A negative situation with an acquaintance evoked more aggression compared to the same situation with a friend (Goldstein & Tisak 2004). Jones, Newman, and Bautista (2005) found that generally teasing comments from a friend were interpreted in a more positive way compared to teasing from a neutral classmate. Lemerise and Arsenio (2000) also included the affective nature of the relationship with a peer as an important factor in their model of social information processing in children. Studies of peer interaction have mainly focused on problematic or ambiguous situations such as teasing, peer rejection, provocations, aggression and conflict, while a systematic description of peer's behaviour is rare.

## Research objectives

The motive of this thesis is mainly to address questions concerning adolescents' interpersonal relations and interpersonal problems, and their associations to self-concept. Interpersonal theory stresses the importance of the self-concept as a maintaining factor for problems in relationships with other people. For that reason it is important to know what aspects of self-concept are related to different kinds of interpersonal problems. This knowledge might be useful, for example, in treatment of interpersonal problems since many studies have found that therapy can change self-concept in a positive way (e.g., Henry, Schacht & Strupp, 1986; Quintana & Meara, 1990; Junkert-Tress, Schnierda, Hartkamp, Schomitz & Tress, 2001, Granberg & Armelius, 2003; Vittengl, Clark & Jarrett, 2004). This thesis also considered other influential factors on interpersonal relationships and interpersonal problems, such as behavioural problems, depression, perceptions of parental rearing styles, type of relationship and sex. The intention was to untangle some of the associations between these factors and the interpersonal relationships of adolescents, and through doing that, also try to understand something more about the meaning and importance of these different aspects that concern adolescents relationships.

## Main research questions

- How do normal adolescents and adolescents with behaviour problems rate that they usually behave in relation to a liked and a disliked peer

when the peer's behaviour toward them varied in a systematic way? (Study I)

- How are interpersonal problems defined by IIP and self-concept defined within the SASB model, related in a sample of normal adolescents? (Study II)
- Which specific aspects of the self-concept (SASB) are related to different types of interpersonal problems (IIP) in a sample of normal adolescents? (Study II)
- How are interpersonal problems (IIP) related to different aspects of self-concept (SASB), taking into account the role of depression (BDI), among a group of boys and girls with conduct problems? (Study III)
- How are the perceived behaviours of both mothers and fathers, as measured with the EMBU, related to normal adolescent boys' and girls' perceived interpersonal problems (IIP)? (Study IV)
- Does the relation between perceived parental behaviour (EMBU) and interpersonal problems (IIP) differ between normal adolescent boys and girls? (Study IV)

## Methods

### Participants

In study I, both a group of normal adolescents and a group of adolescents with psychological and antisocial problems were studied. In study II and IV, normal adolescents were studied, and in study III adolescents with psychological and antisocial problems were studied.

#### Study I

In study I, the normal adolescent group consisted in 60 persons, of whom 30 were girls and 30 boys. Their mean age was 16.7 years, and the range was between 15-18 years. Of these adolescents (boys and girls), 70% were between 16-17 years old. The selection was made from the population register in the community of Umeå, situated in the northern part of Sweden. The community has approximately 100,000 inhabitants. The selection process was random, but subject to constraints regarding gender, age, and area. Different areas of the community were represented to include variation in social background. The adolescents in this group had no known psychiatric or social problems. They also took part in a



study to determine norms for an intake interview that is used for adolescents in different settings in Sweden.

The group with psychological and antisocial problems consisted of 42 adolescents (26 girls and 16 boys). The mean age was 16.6 years and the range was between 13 and 23 years. Approximately 20% were of non-Swedish origin. The adolescents came from a four-year longitudinal research project in Umeå, which was designed to investigate the psychic health and social context of adolescents with psychological and antisocial problems (Armeliuss & Hägglöf 1998). Thirty-six of the adolescents were in treatment, detained in special residential centres in different parts of Sweden according to the Swedish Care of Young Persons Act (LVU) Six were in voluntary treatment as outlined by the Social Services Act. The purpose of the treatment is to help young persons with severe psychosocial problems to develop and mature and to equip them to live without drugs, violence, and crime. The LVU is applied when adolescents' health and development are at risk in their home or through their own destructive behaviour, given that voluntary treatment is not applicable. The treatment is carried out by the Swedish Board of Institutional Care. The adolescents in this group had been diagnosed using the DSM system (American Psychiatric Association, 1994), and the most frequent diagnoses were conduct disorder (80%), drug abuse (66%), and major depression (64%). The adolescents in voluntary treatment also had severe behavioural and social problems although no DSM diagnosis had been made in this group.

## Study II

In study II, the group of adolescents consisted of 322 adolescents (154 boys and 168 girls). They were aged between 11 and 19 years, with a mean age of 15.08 years (15.21 for boys and 14.96 for girls). The group consisted of students in four middle and junior high schools in Umeå municipality. The participants were selected to obtain an approximately equal number of boys and girls. In addition, they were selected from different areas and from both vocational and academic high school classes to achieve a broad socioeconomic distribution.

## Study III

In study III, the adolescents were the same as the group with psychological and antisocial problems in study I, although with the difference that for this study only the adolescents aged between 11-19

years participated. Thirty-five adolescents (14 boys and 21 girls) with a mean age of 15.4 years (15.0 years for boys and 15.8 years for girls) participated. Thirty were held under the LVU and five were in voluntary treatment.

## Study IV

In study IV, the same adolescents as in study II participated, although the age span here was between 12-18 years, and only the adolescents who had fully completed their questionnaire were selected to participate in the study. In this study, 194 people (91 boys and 103 girls) participated. The mean age was 14.74 years, (boys mean age 14.84 and girls mean age 14.66). The selected group did not differ significantly from the excluded group on either age or sex.

## Design

All of the studies were cross-sectional, and the groups were assessed on one occasion. Comparisons were made between subjects and between measures. Furthermore, this thesis is exclusively based on self-ratings. In all of the questionnaires used, the subjective perspective of the participants was asked for.

## Measures

### Assessing acting and reacting

The questionnaire used in study I was based on the SASB model. The eight clusters with focus on actions were formulated as a short vignette with a peer described as acting toward the test person. The adolescents were told to imagine that they interacted with a peer who behaved in the way described toward them. For example, cluster 4 was formulated as “He/she helped/supported me”, cluster 5 as “He/she controlled me/decided what I should do”, and so on for the remaining six clusters. The eight vignettes thus described eight different kinds of behaviour from the peer. The adolescents were asked to answer three questions: When this behaviour from the peer occurs, what do you usually do? What do you usually feel? How often does this behaviour from the peer occur? In the present paper, the results for question one are used.

To answer the question about interpersonal behaviour, the subjects could choose between sixteen alternatives corresponding to the eight clusters with a focus on actions and the eight clusters with focus on reactions in the SASB model. For each vignette, the adolescents could choose as many of the response alternatives for behaviour as they wanted. In the vignettes, as in Figure 1, we used two different words to describe the peer's behaviour. This was also done for the sixteen response alternatives, and the adolescents were told that one or the other meaning could apply, and not necessarily both.

First, the subjects were instructed to answer the questions while thinking of their relationship to a peer that they liked and got along with very well. Next, the subjects were asked to respond to the same vignettes, but this time while thinking about another a peer whom they did not like and got along with.

### Assessing self-concept

Self-concept was assessed using the SASB introject questionnaire (Benjamin, 1974). It includes 36 statements, combinations of the dimensions in the model, of which some are framed positively and others negatively. The participants are asked to rate how well each statement describes themselves on a scale from 0 to 100 (with 10-point increments), where 0 refers to "I do not agree" and 100 refers to "I agree completely". The 36 items were combined into eight clusters that form a circumplex structure. The reliability of SASB introject questionnaire was supported by Lorr and Strack (1999) with a total  $\alpha=.74$ . The test-retest reliability for both the American version (Benjamin, 1987) and the Swedish version (Armeliu, 2001) is  $r=.87$ . The Swedish translation is consistent with the model (Armeliu & Öhman, 1990; Armeliu, 2001).

### Assessing Interpersonal Problems

The IIP (Inventory of Interpersonal Problems) is a questionnaire designed by Horowitz, Rosenberg, Baer, Ureño, and Villaseñor (1988) to measure interpersonal difficulties. We have used a short-form of the IIP that contains 64 items. As in the original version, the Swedish translation of this questionnaire, constructed by Stiwne and Rosander (1999), is divided into two parts. The first part starts with the phrase "It is hard for me to...(for example, trust other people)" and the items in the second part starts with "I do too much of...(for example, fight with other people)". The participants are asked to rate to which degree each problem

has been causing them distress on a scale from 0 (not at all) to 4 (Extremely). The 64 items were combined into the 8 interpersonal subscales that can be described as the problem-version of underlying interpersonal behaviour. All of the subscales are problematic to the subjects. Psychometric properties of the IIP questionnaire were studied by Horowitz et al. (1988). They found alpha values in the range of .82 to .94, and the test-retest reliability was  $r=.80$  to  $.90$ . The Swedish version exhibits alpha values ranging from .70 to .85 according to a study by Weinryb et al. (1996.)

### Assessing Depression

The Swedish translation of the revised version of Beck depression inventory (Beck, Rush, Shaw, & Emery, 1979) is an instrument containing 21 items, constructed to measure level of depression in adolescents and adults. The revised version replaces the original version from 1961. (Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961). For each of the 21 items, four alternative answers are given, and the participants were asked to rate which of four alternatives best described how they had felt “the last week, including today”. The alternatives are labelled from 0 to 3, where zero in all the questions represents no symptoms at all and three represents severe symptoms. When summarized, scores between 0-9 are considered to implicate no/minimal depression, scores between 10-16 mild depression, scores between 17-29 indicates moderate depression, and scores between 30-63 are considered major/severe depression.

### Assessing perceived parenting styles

The EMBU (Egna minnen av barndoms uppfostran – Early memories of parental rearing) is a Swedish questionnaire designed by Perris, Jacobsson, Lindström, von Knorring, and Perris (1980) to assess memories of parenting styles. Each item in the questionnaire is scored on a four point Likert scale (1= no, never; 2 = yes, but seldom; 3 = yes, often; 4 = yes, most of the time). The questionnaire is answered for the mother and father separately. In this study, we used the (short) 23-item self-report questionnaire (Arindell et al. 2001). Factor analyses have resulted in three subscales with adequate factor structure, namely the rejection, emotional warmth, and overprotection subscales. The rejection scale is characterized by a parental rearing style involving rejection, hostility, derogation, and physical punishment. The emotional warmth scale entails parents giving

attention, helping, being warm, and loving. Finally, the overprotecting scale is characterized by exaggerated protecting and intrusive parenting, strict regulation, and demanding unquestioned obedience. The scales for the short EMBU have been shown to be a valid and reliable equivalent to the original and longer 81-item EMBU, with the coefficients (Cronbach's alpha) in the Swedish sample that were 0.75 (Rejection), 0.88 (Emotional warmth), and 0.76 (Overprotection) for fathers, and 0.71 (Rejection), 0.87 (Emotional warmth), and 0.77 (Overprotection) for mothers (Arrindell et al., 2001). This questionnaire has also been tested and recommended for use in several other different countries as a reliable, functional questionnaire (Arrindell et al. 2005).

## Statistics

In the studies both more commonly used statistical measures such as, T-tests, Analysis of Variance (ANOVA), Pearson correlations, regression analyses, and multivariate modelling analyses such as Principal Components Analysis (PCA) and Partial Least Squares Squares of Latent Structures (PLS) were used. The PCA is a correlational method and PLS is a multiple regression method. These methods are useful in clinical research for example when the variables are intercorrelated, since it can deal with collinearity without risking type I or type II error.

## Summaries of the Empirical studies

### Study I

Armeliu, K & Hakelind, C. Interpersonal Complementarity – Self-rated Behaviour by Normal and Antisocial Adolescents with a Liked and Disliked Peer

#### Purpose

This study examines how both normal and antisocial adolescents rated their usual behaviour in relation to a liked and a disliked peer, when the peer's behaviour toward them varied in a systematic way in the dimensions of affiliation and control/autonomy.

## Results

Behaviour from a liked and a disliked peer who were described as having the same friendly behaviour toward the adolescents invited different behaviour from adolescents in both groups.

Generally, the adolescents rated more hostile behaviour with a disliked peer compared to a liked peer irrespective of what kind of behaviour was involved. Friendly behaviour from a liked peer stimulated much more complementary friendly behaviour compared to the same behaviour from a disliked peer. Complementary hostile behaviour (hostile behaviour when the peer was hostile) was also higher with a disliked peer compared to a liked peer, and anticomplementary hostile behaviour (hostile behaviour when the peer was friendly) was higher with a disliked peer compared to a liked peer.

In the antisocial group, friendly behaviour from a disliked peer evoked nearly as much anticomplementary hostile behaviour as complementary friendly behaviour. The same tendency was found in the normal group. Adolescents in the normal group rated more autonomous behaviour with a disliked peer who was controlling and criticizing compared to adolescents in the antisocial group.

## Conclusions

The same behaviour seemed to be experienced very differently depending on quality of relationship. When the peer was liked, the complementarity principle predicted behaviour very well but not when the peer was disliked. In terms of interpersonal theory (Kiesler, 1996), the difference in complementarity with a liked and a disliked peer with friendly behaviour is important for how a relationship might develop and change. With a disliked peer, the probability of negative circles increases if friendly behaviour does not evoke friendly behaviour. In these situations, with a disliked peer, the adolescents react in a more unexpected way from the viewpoint of the peers' behaviour. Furthermore, being less friendly and even hostile increases the probability to elicit less friendly behaviour in the other person. The results show that understanding interpersonal behaviour must take into account both types of behaviour involved in the interaction and type of relationship.

## Study II

Hakelind, C., Armelius, K., & Henningson, M. Relationship between Self-Concept and Interpersonal Problems in Normal Adolescents.

### Purpose

This study investigates the relationship between interpersonal problems defined by IIP and self-concept defined within the SASB-model in a sample of normal adolescents.

### Results

All aspects of a less positive and more negative self-concept were associated with more interpersonal problems. More self-control (cluster 5) was related to being less domineering and vindictive towards others. Except for being domineering and intrusive, a more spontaneous/autonomous self was correlated with less interpersonal problems. Furthermore, the self-concept pattern of high hostile self-autonomy (cluster 8) in combination with low friendly self-control (cluster 4) was associated with interpersonal problems such as vindictiveness, being domineering, and intrusive. The self-concept pattern of hostile self-control (cluster 6) and low self-acceptance (cluster 2) was related to interpersonal problems located around the friendly and lower part of the circumplex model, indicating problems with being too friendly and too submissive. The self-concept pattern of high hostile self-autonomy combined with low friendly self-autonomy (clusters 8 and 2) was associated with problems with being socially avoidant and being too cold.

### Conclusions

The present study shows that when self-autonomy is combined with a hostile self-concept, the result could be interpersonal problems located at the top of the IIP circumplex – being domineering, vindictive, and intrusive – and when self-control is combined with a hostile self-concept, the result could be problems located at the lower/right part of the circumplex – being too submissive, exploitable, and nurturant. The results in this study showed that it is necessary to consider the combination of self-love and self-autonomy to understand interpersonal problems in

adolescents. According to the regression analyses, it is not the main axes that contribute with the most variance, but the clusters that combine the affiliation and the interdependence axes. This gives support to the suggestion that only affiliation or interdependence separately doesn't explain interpersonal problems: it is the combination that is important.

### Study III

Hakelind, C., Henningsson, M., & Armelius, K., Interpersonal problems, Self-concept and depression in Antisocial Adolescents.

#### Purpose

This study examines the relationships between interpersonal problems and different aspects of self-concept, taking into account the role of depression, among a group of antisocial boys and girls. In addition, this study examines the possibility that boys and girls might differ in how aspects of the self-concept and depression are associated with interpersonal problems.

#### Results

Interpersonal problems were associated with a negative self-concept (DAG) and with depression (BDI). Autonomy was associated with a positive self-concept (AG) for both the boys and the girls. For the boys, self-control seemed to have a negative meaning – associated with all the interpersonal problems and with depression (BDI) – whereas self-control had a positive meaning for the girls – associated with a positive self-concept (AG). The composite cluster imbalance also appeared at different positions for boys and girls. For the boys, imbalance was correlated with a negative self-concept (DAG), Depression (BDI), self-control, and all of the interpersonal problems, whereas for the girls' imbalance seemed to have a quite neutral position, neither positive nor negative. The regression analyses for boys and girls showed that Interpersonal problems for the boys were primarily explained by a lack of balance in self-control and autonomy and by depression. For the girls, the interpersonal problems were mainly explained by low levels of positive self-concept (AG) and by depression. Furthermore, the girls exhibited a significant relation between autonomy and self-control that indicates of more, whereas boys showed no relation between the same variables, indicating imbalance.



## Conclusions

This study captures the importance of considering the interactions between interpersonal problems, self-concept, and depression in treatment of adolescents with psychiatric diagnoses such as conduct disorder and depression. The results from this study, using the IIP, SASB, and BDI, imply that depression can have various nuances. For example, it can be associated with different types of interpersonal problems. The most vivid example of this is how the completely different interpersonal problems of being socially avoidant and intrusive, located opposite one another in the IIP model, both are associated with depression in boys. Furthermore, some gender differences were noteworthy; both self-control and the composite cluster imbalance were closely associated with interpersonal problems and negative self-concept (DAG) in boys, whereas autonomy was associated with less interpersonal problems and a positive self-concept (AG). For the girls, both self-control and autonomy were associated with a positive self-concept (AG) and the composite cluster imbalance was, on the contrary, for boys, not influential on their interpersonal problems. This study can not disclose the origin of these differences. However, it seems that for the girls autonomy and self-control were more balanced, which may possibly explain why both self-control and imbalance are associated with interpersonal problems for boys, but not for girls. When self-control is not balanced with autonomy, it rather seems to have a negative meaning, as for the group of antisocial boys.

## Study IV

Hakelind, C., Henningsson, M., & Armelius K. Memories of parental rearing style and interpersonal problems in adolescents

### Purpose

This study investigates the perceived behaviours of both mothers and fathers and how these behaviours relate to adolescents perceived interpersonal problems. An additional aim was to study if the relation between perceived parental behaviour and interpersonal problems might be different for boys and girls.

## Results

The Partial least squares analyses showed that for the boys an emotionally warm father was the EMBU variable with the largest influence on the model, showing that for boys the memory of an emotionally warm father served as a protecting factor for interpersonal problems. A rejecting father, also with a VIP-value indicating a large influence on the model, had the strongest positive association to interpersonal problems. An overprotecting father and a rejecting mother were also variables with some relevance for the boys' PLS model, both showing positive association with interpersonal problems.

For the girls, the variable overprotecting mother had the largest VIP-value, showing that memory of an overprotective mother had the strongest positive association with interpersonal problems, followed by rejecting mother, which also had a positive association with interpersonal problems. The emotionally warm mother and the emotionally warm father were variables with some influence on the model, indicating that memories of an emotionally warm mother and father served as a protective factor for the girls' interpersonal problems.

It was also found that type of memory as measured by EMBU was associated with different interpersonal problems. For example, coldness and being socially avoidant were associated with low levels of positive memories, while being intrusive was associated with high levels of negative memories both for boys and girls.

## Conclusions

The general impression was that perceived parenting styles of both parents influence the presence of interpersonal problems in adolescents. For example, memories of fathers being emotionally warm seemed to be of some importance for girls' interpersonal problems as well as memories of a rejecting mother seemed to be of some importance for boys' interpersonal problems. However, as expected, boys' interpersonal problems have stronger associations with the perceived parenting styles of fathers, while girls' interpersonal problems have a stronger association with perceived parenting styles of mothers. Thus, since there were no significant differences in mean values between boys and girls on either the EMBU or the IIP variables, it seems that the same perceived actions coming from mothers and fathers may have different meanings for boys and girls.

## General discussion

Generally, interpersonal theories are founded on the basic preposition that early interpersonal interactions (often with parents) shape the personality. Once the self-structure is established, it is rather stable because it tends to evoke interpersonal processes in the present that actively maintain the personality. The self-structure both directs itself and is created in a cyclical feedback loop (Carson, 1969, 1982). This basic theory could be illustrated in a simplified model.

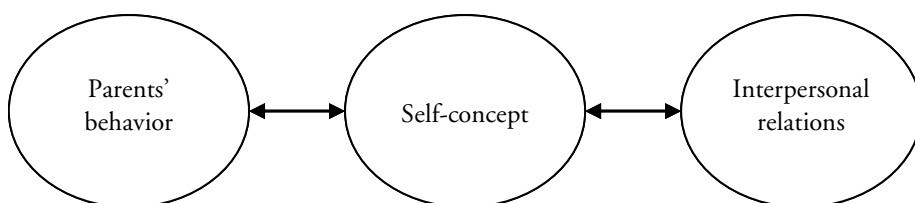


Figure 3. Simplified model of conceptual framework of interpersonal theory.

This thesis evolves around the conceptual framework described in the above model in different ways, considering different aspects of it and adding (discussing) other aspects.

### Self-concept and interpersonal problems

Concerning what aspects of the self-concept that are related to different types of interpersonal problems in adolescents, the present thesis gives support to the suggestion that only affiliation or interdependence separately doesn't explain interpersonal problems - it is the combination that is important. For example, it was found that in normal adolescents, when self-autonomy is combined with a hostile self-concept, the result could be interpersonal problems such as being domineering, vindictive, and intrusive and when self-control is combined with a hostile self-concept, the result could be problems such as being too submissive, exploitable, and nurturant. These results pointed out that it is necessary to

consider the combination of self-love and self-autonomy to understand interpersonal problems in adolescents.

## **Perceived parenting styles – self-concept - interpersonal problems?**

It is also interesting to note that comparing study II and IV, the different aspects of the self-concept as measured by SASB has a stronger association to interpersonal problems as measured by the IIP in normal adolescents than the perceived parental rearing styles as measured by the EMBU. There is a possibility that the parenting style is being mediated by the self-concept. This would agree with the interpersonal theory, and follow the line in the schematic and simplified model presented above. Decovics and Meeus (1997) also note that adolescents' self-concept serves a mediating role in the relationship between maternal child-rearing style and involvement with peers. In their study, the mediating role was greatest for maternal acceptance. Paternal child-rearing style seemed to have an independent effect on the adolescents' involvement with peers. Their results suggested that a positive self-concept and warm and supportive parenting each contribute to good peer relations.

## **Sex differences in the associations between perceived parenting styles and interpersonal problems**

In this thesis, warm parenting was associated with less interpersonal problems for both boys and girls; however, some rather large sex differences were found, and the most protruding pattern was that boys' perceptions of their fathers being warm had the strongest (negative) association to their interpersonal problems. For girls' interpersonal problems, the perceived behaviours of their mothers had the most relevance. Sex differences like this have not often been found, and that might have its explanation in that not much research with that focus has been done (Dusek & McIntyre, 2003). However, even if they are few there are studies that have found similar results, For example it has been found that rearing behaviours of the mother and attachment towards the mother are related to both internalizing and externalizing problems in girls, while rearing behaviours of the father and attachment towards the father are related to internalizing and externalizing problems in boys (Roelofs, Meesters, ter Huurne, Bamelis & Muris, 2006).

## Does autonomy have different meanings for boys and girls?

Also in the investigation of interpersonal problems, for self-concept and depression among adolescents with conduct problems, sex differences were found. Exploitableness and being overly nurturant were problems best explained by depression among the girls. These findings were discussed in relation to what Blatt, Shahar, and Zuroff (2001) call anaclitic psychopathologies, which are defined as primarily being preoccupied with relatedness. Introjective psychopathologies are on the opposite side of the continuum, mainly concerned with issues such as autonomy, control, and separateness. The depression found in the sample of girls with conduct problems is discussed in terms of being anaclitic, while the depression found in boys with conduct problems, which was related to being socially avoidant or intrusive, might be discussed in terms of introjective depression. This also agrees with the theory that girls become more attuned towards relationships, while separation and differentiation (i.e., variations of autonomy) are more salient aspects in the self-development of boys (Gilligan, 1982). Considering instead the Interpersonal theory which suggests that personality and self-concept might be the consequence of early interaction, together with the sex differences described, it is possible to speculate that love and acceptance are differently conditioned for boys and for girls.

Further interesting findings on the theme of autonomy were that in the group of adolescents with conduct problems boys had no relation between self-control and autonomy resulting in greater imbalance between these two factors, while for the girls autonomy and self-control were more balanced. Although hypothesizing, this may also possibly explain why both self-control and imbalance are associated with interpersonal problems for boys but not for girls. When self-control is not balanced with autonomy, it rather seems to have a negative meaning as for the group of boys with conduct problems.

## Peer relationships, and the importance of autonomy

In the study of how adolescents behave in different types of peer relationships, the importance and complexity of autonomy was also shown. In the group with conduct problems, control from a liked peer evoked more autonomous behaviour compared to a disliked peer. Autonomy granting by a liked peer may be experienced in a positive way, while being given autonomy by a disliked peer may be experienced as

more difficult to handle, and thus evoked less complementary autonomous behaviour. A disliked peer who is autonomy granting may even be met by hostility.

When controlling and hostile behaviours were met with autonomous behaviour, autonomy might also have been a way to handle conflicts with peers. This was most pronounced with a liked peer for both groups. The ability to stand up for one's own view underlies competent conflict resolution because it increases the probability to solve conflicts in a non-aggressive way. This might be more important with a liked peer compared to a disliked peer.

## The impact of type of relationship

Our results clearly show that an understanding of interpersonal behaviour must take into account both the type of behaviour involved in the interaction and the type of relationship involved. Across all situations investigated, complementary and anticomplementary interpersonal behaviour were influenced by both type of behaviour and type of relationship and that the most important aspect of a relationship to influence interpersonal behaviour was with whom the adolescent was interacting.

## Conclusions

The motive of this thesis was mainly to address questions concerning adolescents' interpersonal relations and interpersonal problems, and their associations to self-concept. Interpersonal theory stresses the importance of the self-concept as a maintaining factor for problems in relationships with other people. A general conclusion is that self-concept seems to be important for the understanding of interpersonal problems in adolescents, and thus the theory of the self-concept as a maintaining factor for interpersonal problems can be supported. Concerning interpersonal problems in the group of adolescents with conduct problems, it was also concluded that depression was an important factor, even though depression among them was associated to different interpersonal problems for boys and girls. This thesis also considered other influential factors on interpersonal relationships and interpersonal problems, such as perceptions of parental rearing styles, type of relationship and sex. The intention was to untangle some of the associations between these factors and the interpersonal relationships of adolescents, and through doing that,

also try to understand something more about the meaning and importance of these different aspects that concern adolescents relationships.

A conclusion concerning adolescents relating to peers was that when the peer was liked, the complementarity principle predicted behaviour very well, but not when the peer was disliked. In terms of interpersonal theory (Kiesler, 1996), the difference in complementarity with a liked and a disliked peer with friendly behaviour is important for how a relationship might develop and change. With a disliked peer, the probability of negative circles is increased if friendly behaviour does not evoke friendly behaviour. As suggested by Lemerise and Arsenio (2000), the importance to continue to be liked by a peer whom you want as a friend might influence the choice of behaviour toward the peer. To react with hostile behaviour might endanger the relationship with a liked peer and hostile complementarity would therefore be lower with a liked peer compared to a disliked peer with the same behaviour. Thus, it seems that preserving the self-concept is not the only factor in interpersonal relations, but preserving the relation is also an important aspect to consider.

It can also be concluded that the development of both relatedness and autonomy are important tasks for adolescents. This thesis highlights the importance of a self-concept that combines love or affiliation with a balance in control and autonomy for well-being, less interpersonal problems, and better relations with peers. As also discussed by Noom, Dekovic, and Meeus (1999), autonomy is an important developmental goal in child rearing, although a stable base of attachment is also required in order to explore the world. Developing autonomy thus requires a positive relationship with parents. This was also supported in study IV, where the associations between interpersonal problems and perceived parenting styles were investigated. When trying to understand the meaning and importance of for example depression and autonomy it must be concluded that it is important to recognize possible sex differences. This leads to the thought that there probably exist many other sex differences in this area, not yet found.

## Limitations

There are several limitations in this thesis. Firstly, the studies are all cross sectional and based exclusively on a subjective perspective using self-rating questionnaires. The use of other complementary methods, such as parental reports and expert observation could of course have been useful and adding supplementary information. However, Gurtman (1996)

provided direct verification for agreement between IIP self-reports and expert judgments of interpersonal functioning, which gives some support for self-report studies. It is also important to acknowledge the clinical relevance of adolescents own subjective perspective. Secondly, the samples examined in this thesis are relatively restricted. Especially the small size of the adolescent group with conduct problems is a limitation, particularly since the boys in this group were so few. This is however a complicated group to study, due to their often very complicated life, both with social and psychological problems. Other limitations are that the normal adolescents were recruited from schools, and this might have been a reason to a poorly controlled attrition rate, due to the fact that not all possible students might have attended at that time. This way of collecting data also may have caused an exclusion of adolescents who do not attend school at all, for various reasons, leading to bias.

## Future directions

The character of this thesis is mainly exploratory, why it would be of value to continue with confirmatory studies. It would for example be interesting to further investigate if the self-concept can be seen as the mediating factor between parenting styles and interpersonal problems. It would also be interesting to have a closer look on sex differences, in studies especially designed for this purpose. Since the investigated samples are restricted in size, it would be valuable to study larger groups, especially groups of adolescents with conduct problems. It would of course also be interesting to study other groups and even other cultures. Further studies should also focus more directly on the role of the father concerning self-concept and interpersonal problems in adolescents, since this can be considered a “hot topic” at the moment, with single parents becoming more and more common.

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