

Parents' reactions to adolescents' problematic behaviors

Till min pappa Billy som gav mig lusten att skriva

Örebro Studies in Psychology 22



TERESE GLATZ

**Parents' reactions to adolescents'
problematic behaviors**

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Title: Parents' reactions to adolescents' problematic behaviors.

Publisher: Örebro University 2011

www.publications.oru.se

trycksaker@oru.se

Print: Örebro University, Repro 11/2011

ISSN 1651-1328

ISBN 978-91-7668-832-8

Abstract

Terese Glatz (2011): Parents' reactions to adolescents' problematic behaviors. Örebro Studies in psychology 22. Pp. 71.

Traditional socialization theories suggest that parents shape their children, and that parents' socialization strategies are largely independent of their children's behaviors. These ideas, however, have received criticism. In this dissertation, I focus on how children and adolescents influence their parents' behaviors. Specifically, I examine parents' reactions to problematic behaviors in their adolescents. In the three studies, I presented theoretical models that offered explanations why parents react as they do to problematic behaviors in their adolescents. In these models, parents' cognitions worked as mechanisms to explain their subsequent reactions. The overall pattern in the studies was that parents tended to shift in cognitions about their own role as parents and their adolescents' behaviors when they were faced with problematic behaviors, which influenced their behaviors toward their adolescents. In Study I, parents became less opposed to adolescent drinking when they encountered their adolescents intoxicated. This reaction was explained by a reduction in dissonance between their attitudes to adolescent drinking and their knowledge of their own adolescents' drinking. In Study II, parents of adolescents with hyperactivity, impulsivity, and attention problems (HIA) reported that their adolescents did not respond to their attempts to correct their behaviors. This perception made them feel powerless and, as a consequence, they increased in negative behaviors and decreased in positive parenting strategies. These perceptions might indicate that parents partly have given up the idea that they could change their adolescents' misbehaviors. In addition, as shown in Study III, these perceptions were influenced by parents' earlier experiences with their older children. In sum, the results of this dissertation suggest that adolescents influence their parents' cognitions and behaviors. Further, the results highlight the importance of focusing on how parents' ways of thinking influence their parenting strategies.

Keywords: adolescents, problematic behaviors, adolescents' characteristics parents' cognitions, parents' reactions, parenting, parent-child relationship, family system.

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Acknowledgements

The last five years have been a time of personal and professional development. It is with mixed feelings that I am writing the acknowledgements for my dissertation. There are so many people that I'm grateful to and that have helped me through this process.

I want to thank my supervisor, Håkan Stattin, for giving me the opportunity to be part of this creative and inspiring environment. You have always encouraged me to think about my research in new ways and you have listened to my, sometimes very confusing, ideas. I admire your creativity and your ability to develop interesting research questions. Thanks also to my second supervisor, Margaret Kerr. You have been extremely patient when helping me with language and structure issues in my writing. Without you, my studies would never have been as good as they are. My special thanks go to Lauree Tilton-Weaver for her help with my kappa. I cannot find words to express my gratitude to you. Without your help, I'm sure that I would still be working on it. So, let's have that drink!

Some people have been by my side for almost the whole process. Ylva, we started together and we have shared a lot of things. Your support and friendship have meant a lot to me and I'm looking forward to sharing more things in the future. I can't believe that we are here now! Selma, I am not exaggerating when I say that you were the one that stopped me from giving up that late evening in October. Also, I promise that you'll never hear me say "if parents find their youth drunk..." anymore. Vivi, you and me have been office neighbours and I think I have spent about the same amount of time in your office as I have done in mine, talking about my research and other things. You have always had your door open (even if it was closed). Thank you all for being there for me!

There are also other people that I want to thank. Maria Tillfors, you have been a great support, especially in the end when I needed someone to talk to. Nanette, even if we haven't spent that much time together lately, you have been through this with me from the beginning and your friendship means very much to me. I want to thank all my colleagues at "the Centre for Developmental Research" and "Youth & Society". You have all helped me when I have had research problems and our Friday "fikas" have been a recurring happy event. Some people who have left our research group have meant a lot to me. Vilmante Pakalniskiene and William Burk were working here when I started. Both of you were amazing, offering your help and answering all my stupid questions. Stefan Persson, you were one of the first people that I met at the centre when I was struggling with my analyses for my D-paper. Since then, you have been a safe base, and you have always put everything aside when I have had a question. Further, I want to thank Sheila Marshall for giving me very useful comments on an earlier version on this dissertation. I also want to acknowledge all students

and parents who participated in the data collections, without them, this dissertation would not exist.

For three months, I visited a research group in Guelph, Canada. There, I meet Leon Kuczynski and many other people that made my visit really good. Leon, you welcomed me as one of your students and you spent enormous time in discussing my research. I learnt a lot during this time and I'm looking forward to continue our collaborations in the future.

I want to thank my family and friends. You have always shown me that you believe in me and that I'm so much more than just a doctoral student. Mamma and Sandra, I admire your strength because I know that both of you have gone through tough times. You are my major role models! This dissertation is dedicated to my father, Billy, who passed away too early and whom I didn't have enough time to get to know. I'm sure that I have gotten my passion of writing from you and I think that you would have been proud of me now. The rest of my family, you have worked as a retreat for me during these five years. I want to apologise to you and all my friends for being the most asocial person ever. I promise that there will be a change on this matter.

Finally, Johan, you have given me everything that I have ever dreamed of. I can't imagine what you have been through during this time and I m so grateful that you have put up with all my ups and downs. You have always listened to whatever I needed to talk about. I think you know more about my research than anyone else does. Without you, I would never have been able to do this! Tack!

Örebro, October 2011

List of studies

This dissertation is based on the following papers, which hereafter will be referred to by their Roman numerals.

- Study I** Glatz, T., Stattin, H., & Kerr, M. (in press). A test of cognitive dissonance theory to explain parents' reactions to youths' alcohol intoxication. *Family Relations*.
- Study II** Glatz, T., Stattin, H., & Kerr, M. (2011). Parents' reactions to youths' hyperactivity, impulsivity, and attention problems. *Journal of Abnormal Child Psychology*, 39, 1125-1135. doi: 10.1007/s10802-011-9541-3
- Study III** Glatz, T., Stattin, H., & Kerr, M. Parents' reactions to adolescents' hyperactivity, impulsivity, and attention problems: Do parents' experience of having raised a child before matter? Manuscript in preparation.

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I Introduction

In the majority of research on parenting, parents have been viewed as socializers of their children. Theoretical accounts are dominated by socialization theories, in which parenting is conceptualized as a process of influence going *from* parents *to* children (Grusec, 1997). According to this view, parents shape their children's behaviors, through punishment and reinforcement, in accordance with what they think is socially acceptable (Hartup, 1978). Literally, this suggests that if a child develops adjustment problems, parents have contributed to this development by doing something wrong or by failing to do something (Ambert, 2001; Hovee, Dubas, Eichelshiem, Van Der Laan, Smeenk, & Gerris, 2009; Kerr & Stattin, 2003). In short, parents are seen as having failed to socialize their children in an appropriate way. These ideas provide the basis for traditional theories of socialization, which have one main feature in common: a unidirectional perspective, where the parent is the *socializer* and the child is the *socialized*.

Socialization theories have received substantial empirical support. A stable pattern has emerged: positive parenting (e.g. consistent discipline, and high levels of support and behavioral control) foster well-adjusted children and adolescents, whereas negative parenting (e.g. harsh or strict discipline, inconsistent expectations, neglect, abuse, expressed hostility, and psychological control) contribute to children's adjustment problems (e.g. Albrecht, Galambos, & Jansson, 2007; Buehler, Benson, & Gerard, 2006; de Haan, Prinzie, & Deković, 2010; Galambos, Barker, & Almeida, 2003; Prinzie, Onghena, & Hellinckx, 2006; Scaramella, Conger, Spoth, & Simons, 2002; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). The findings in these studies suggest that a lack of positive parenting practices and the use of negative parenting practices contribute to children's adjustment difficulties.

Many studies that have been done from a socialization perspective have been confident in their conclusions about how parents socialize their children and adolescents. However, other scholars have argued that a piece is missing in this picture. This piece concerns whether or not children influence their parents (e.g. Bell, 1968, 1971; Bell & Chapman, 1986; Lytton, 1990, 2000; Sameroff, 1975). In this dissertation, I use their ideas as a foundational base, and I focus on parents' reactions to their adolescents' behaviors. I also incorporate parents' cognitive processes, because parents' behaviors are often studied without considering how they interpret the situations that prompt their behaviors. Although some conceptual models recognize parents' cognitions as part of the process, cognitive processes are seldom included in analytical models. In order to better understand how adolescents' behaviors influence parenting, I examine parents' cognitions as mediating and moderating mechanisms. Specifically, I examine how par-

ents' cognitions about their adolescents help explain their reactions to adolescents' problematic behaviors.

The active child

How children affect their parents has received little empirical investigation relative to the large body of research examining how parents affect their children (Hartup, 1978; Lytton, 1990, 2000). Child effects have often been overlooked because parenting is typically regarded as the determinant of children's behaviors. Some researchers, however, have criticized traditional conclusions about the direction of influence. For example, in their chapter about socialization in the parent-child relationship, Maccoby and Martin (1983) presented arguments and empirical results that shed light on the active role of children in shaping their parents' behaviors. Supporting this notion, empirical research has shown that parents' behaviors are sometimes better described as reactions to, and not antecedents of, children's behaviors. Thus, much of what parents do is actually a response to children's behaviors (Jaffe, Caspi, Moffitt, Polo-Tomas, Price, & Taylor, 2004; Lytton, 1990, 2000). However, children are still largely treated in research as passive recipients of parents' socialization practices (Pardini, 2008). Thus, despite convincing empirical evidence that children influence their parents, many researchers continue to focus solely on how parents influence their children and not the reverse.

What lies in the way of recognizing the influence children have on their parents' behaviors? One possible answer is the way parenting has been conceptualized. Kuczynski, Lollis, and Koguchi (2003) proposed that "many of the taken-for-granted concepts of parenting are encapsulated in unidirectional cultural metaphors that facilitate a unidirectional, parent-to-child understanding of parent-child relations and child-rearing processes" (Kuczynski et al., 2003, p. 422). The word parenting itself suggests one direction of influence. Cultural metaphors for parenting facilitate thinking of parenting in terms of parents' behaviors that influence their children, and inhibit thinking about how children influence their parents. These metaphors are represented in the terminology used in research. Constructs like "internalization," "transmission," and "compliance" suggest one direction of influence, and confine actions to parents and reactions to children (Kuczynski, 2003; Kuczynski, Marshall, & Schell, 1997). This unidirectional, taken-for-granted, perspective has guided parenting research for many decades. As a result, the effects children have on their parents are often overlooked or minimized.

As a step in the right direction, researchers have scrutinized some constructs that have traditionally reflected a parent-to-child influence. Lewis (1981) argued that the operationalization of firm parental control (today referred to as behavioral control, Barber, Olsen, & Shagle, 1994) was problematic. Researchers had drawn the conclusion that children's obedience is primarily a result of parents' exercising control. However,

according to Lewis, children may behave well as a result of their willingness to obey, or a lack of conflict in the parent-child relationship, rather than parents' use of control. Thus, the findings about parents' firm control might say more about children's characteristics or the quality of the parent-child relationship than about parents' use of control. Similarly, Stattin and Kerr (2000) presented new ideas concerning parental monitoring. According to these authors, previous research had defined monitoring as active parental behaviors aimed at gaining knowledge about their children's whereabouts, but it had not been operationalized in this way. Instead, earlier studies had measured the presumed *outcome* of monitoring, i.e. knowledge, and not parents' *active efforts* to gain knowledge. In their research, Kerr and Stattin have shown that children's disclosure, not parents' control and solicitation, is the most important means by which parents gain knowledge about their children's activities outside the home (Kerr & Stattin, 2000; Kerr, Stattin, & Burk, 2010; Stattin & Kerr, 2000). Thus, parents do not obtain information about children's activities through their own active behaviors; rather, children provide them with this information. In short, some attempts have been made to re-define traditional concepts to include the active role that children play in their parents' socialization practices.

To conclude, there are barriers to viewing children as active and influencing their parents' behaviors. These include the ways researchers have defined and measured certain parenting concepts. In many situations, child effects have not even been considered, and, as a consequence, what are thought of as parent-driven processes may well be child-driven. However, important voices have been raised encouraging researchers to continue to examine the influence children might have on their parents' socialization strategies.

How do children influence their parents?

The control system model. Bell (1968) was the first seriously to focus on children's roles in the socialization process. He developed an alternative model that included children's effects on parents. Bell argued that studies of human socialization lagged far behind ideas reported in animal studies. In that area, researchers had been aware of offspring effects, as a compliment to parent effects for several years, and Bell maintained that it was logical to expect the same processes among humans. Further, he argued that if two parents behave differently toward one child, this might indicate a parent effect. However, parent effects do not explain why the same parent behaves differently toward two children. Rather, he argued: "Parents do not have fixed techniques for socializing children. They have a repertoire of actions to accomplish each objective" (Bell, 1968, p. 88). Thus, parents use different strategies depending on their children's behaviors, which helps explain why one parent behaves differently toward two children. In his works, Bell (1971; Bell & Chapman, 1986) presented the control system model, where parents and children regulate each other's

behaviors through different strategies. This model suggests that parents and children have upper and lower limits of tolerance of the other person's behaviors, which are set by expectations about the other person based on their earlier interactions. If these expectations are violated, the response is to try to reduce or stimulate a particular behavior of the other person. For example, children might exceed parents' upper limits for engaging with peers in an aggressive manner, which would make parents use upper limit control strategies, such as punishing, aggression, and rewarding appropriate play, to reduce the children's aggression. In contrast, shy children might exceed lower limits of parents' tolerance for social engagement by refusing to play with their peers. In this case, parents could be expected to use lower limit control behaviors (soothing anxious children, encouraging talking to others) to stimulate social engagement. When it was presented, this model offered a nuanced way of viewing influences within the parent-child relationship. Thus, according to this model, different child behaviors elicit different parental responses.

The transactional model. Taking Bell's ideas into account, Sameroff (1975) offered a general model for understanding the development of positive and negative outcomes in children. This model has had an important influence on research on child development (Dixon, 2002). Sameroff argued that social development is a product of successive interactions between children and their parents. The transactional model was presented as a way of studying social development and emphasized the development of both parents and children. He also highlighted dynamics in the parent-child relationship and argued that parents and children change over time as a function of their relational interdependence. In this model, the focus is not on how the level in one behavior influences the level in another behavior, but on the changes in both persons' behaviors that unfold as parents and children interact with each other over time. This focus makes the transactional model less mechanistic than the ideas presented by Bell (1968), where the level of children's inappropriate behavior is supposed to influence the level of parents' control responses. According to Sameroff, developmental change operates either quantitatively, by increases or decreases in the level of a response, or qualitatively, by the eliciting of a new and different response (Sameroff, 2009). For qualitative change, there is a change in form, but not in function, of a behavior or internal process. Quantitative change does not involve change in either form or function, but only a decrease or increase in the existing behavior or internal process. Simplified, this model implies that children influence their own development by influencing their parents' responses to their behaviors. That is, children's behavior at an earlier point in time influences their parents' subsequent behavior, either through a change in the level of the same parenting behavior or by prompting a new behavior. Parents' responses then influence their children's behaviors transactionally (Sameroff, 1975). An important part of behavioral transactions consists in parents and children's

internal processes. This feature is a key concept in the transactional model, because if transactions are to occur, changes in persons' beliefs about their own or the other person's behavior also need to occur (Sameroff, 2009). To illustrate this idea, consider when parents or children expect one behavior, but are faced with another. The contradiction between what is expected and what actually happens is a stimulus for change. When parents and children try to make sense of this contradiction, they might also change their behaviors, which in turn might result in a change in the other person's internal and external processes. Sameroff argued that it was important to remember that this occur within a parent-child relationship, where the transactional processes influence and are influenced by relationship features, such as the history of the relationship. Thus, this model can be used to examine developmental changes in parents and children's cognitive-emotional processes and behaviors, while taking into account how the parent-child relationship changes as a result of these processes.

The characteristics of the parent-child relationship. The parent-child relationship has characteristics that enable children to influence their parents. These characteristics include power differentials in the relationship, the relationship history, the type of the relationship (open versus closed), and relationship-based satisfaction of needs and goals.

First, the parent-child relationship has traditionally been viewed as involving power differences. It has been argued that parents influence their children because parents have more power over their children than children have over their parents (Hoffman, 1975). This is, however, a simplified picture. Instead, the concept of "interdependent asymmetry" (Kuczynski, Harach, & Bernardini, 1999) offers a more realistic description. This concept implies that parents and children interact in an interdependent, intimate way, where power is not static, but both are vulnerable to the influence of the other (Kuczynski, 2003; Kuczynski et al., 1999). In terms of children as active agents, children can assert power over their parents by actively resisting some of their parents' behaviors. Thus, traditional views of parents as having more power over their children, rather than seeing both as having *some* power, may not be suitable for understanding parent-child relationships.

Second, parents and children have a history of spending a lot of time together, including memories and interpretations of prior interactions. Through their cognitive representations, their earlier interactions influence their present and future behaviors (Lollis, 2003; Lollis & Kuczynski, 1997). Consistent with these ideas, researchers have shown that children perceive themselves as able to influence their mothers more than other adults, because they can base their behaviors on knowledge of their mother's reactions in similar situations in the past (Hildebrandt & Kuczynski, 1996). Thus, a long history of interactions in the parent-child relationship influences their present and future interactions.

Third, the parent-child relationship differs from other relationships in another important way. It is considered “closed” in the sense that it is involuntary, stable, and permanent (Laursen & Bukowski, 1997; Laursen & Collins, 1994). It is different from an “open” relationship, such as that with peers, because it has an implicit involuntary future, which neither parents nor children can easily leave (Grusec & Goodnow, 1994). Further, the knowledge that their relationship is enduring leads parents and children to behave in ways in which they would not with other people. Because the parent-child relationship is a “closed” relationship, past interactions may influence future interactions in different ways than interactions in “open” relationships. This might mean, for example, that parents and children take the future relationship for granted, and do not make an effort to behave in a positive way (Kuczynski, 2003). In short, the involuntary nature of the parent-child relationship influences parents and children’s present and future behaviors.

Forth, parents and children are dependent on each other to fulfill some of their personal and relational goals. Parents are expected to fulfill some of children’s psychological and physiological needs. However, parents may also be dependent on their children. For example, parents’ self-esteem in their parenting role tends to be dependent on their children’s behaviors (e.g. Mash & Johnston, 1983). If children misbehave, this might indicate to parents that they have not been able to do a good job in the socialization of their children, which may be linked to their low self-esteem. Thus, children and parents might be important sources of goal and need satisfaction for each other that they cannot gain elsewhere.

In sum, there are some theoretical ideas about how child effects operate. These ideas involve viewing children as active agents, who are able to influence their parents through their relationships they have with them. These are important aspects to consider when trying to understand how children are parented. In addition, there is also empirical support for the idea that children influence their parents.

Empirical support for children’s effects on parents

Empirical examinations of how children influence their parents are often found in studies focusing on problematic behaviors in children. Especially during adolescence, some problematic behaviors, such as disobedience and substance use, increase (e.g. Galambos et al., 2003; Moffitt, 1993; Maggs, Almeida, & Galambos, 1995). Adolescents often view such behaviors as means of gaining autonomy (Maggs et al., 1995) and as markers of maturity (Galambos, Barker, & Tilton-Weaver, 2003). However, many parents worry about undesirable consequences from increased independence and problematic behaviors (Pasley & Gecas, 1984). Although parents often recognize adolescents’ needs for autonomy, they may not always be able to meet these needs (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & Iver, 1993; Gutman & Eccles, 2007; Pasley & Gecas, 1984). The diffi-

culties that parents have in dealing with these issues make adolescence an optimal time to study child effects.

Studies in this area have shown a consistent pattern. When faced with problematic behaviors, parents respond by *reducing* behaviors that might have a positive influence on their adolescents' behaviors and *increasing* behaviors that have been linked to negative adjustment. First, concerning parents' reductions in behaviors, parents tend to show less affection (Jang & Smith, 1997; Reitz, Deković, Meijer, & Engels, 2006) and support (Hafen & Laursen, 2009; Huh et al., 2006; Kerr & Stattin, 2003; Scaramella et al., 2002; Stice & Barrera, 1995) when faced with problematic behaviors, such as delinquency and alcohol drinking. In addition, parents seem to decrease their control as a result of adolescents' alcohol drinking (Huh, Tristan, Wade, & Stice, 2006; Stice & Barrera, 1995) and delinquency (Huh et al., 2006; Kerr & Stattin, 2003; Kerr, Stattin, & Pakalniskiene, 2008; Scaramella et al., 2002; Stice & Barrera, 1995). Consistent with these findings, adolescents' smoking have been shown to decrease parents' rule setting (Huver, Engels, Vermulst, & de Vries, 2007). Second, concerning increases of parenting strategies, externalizing behaviors of adolescents seem to increase parents' psychological control (Albrecht et al., 2007; Pettit, Laird, Dodge, Bates, & Criss, 2001) and harsh parenting behaviors (Hipwell, Keenan, Kasza, Loeber, Stouthamer-Loeber, & Bean, 2008). In sum, these studies provide evidence that parents respond to problematic behaviors in ways that may exacerbate behavioral problems. The question is why parents react in these ways.

Explanations for parents' reactions to their adolescents' behaviors

Several possible explanations for parents' reactions have been suggested. One concerns how parents perceive adolescents' behaviors. Huh and colleagues (2006) presented evidence that problematic behaviors (externalizing symptoms and alcohol use) had a greater influence on parenting than parenting had on these behaviors. According to the authors, parents' reactions can be explained by the fact that adolescents' problematic behaviors become increasingly threatening to parents and parents respond to this by reducing their support and control.

Another idea concerns the kinds of peers that adolescents have. In one study, well-adjusted boys were compared with antisocial boys with regard to their family functioning (Dishion, Nelson, & Bullock, 2004). The results showed that among antisocial boys, family management degraded over time. The authors suggested that low family management, which is a result of adolescents' antisocial behaviors, might pave the way for adolescents' access to deviant friendships. In turn, these deviant peer processes might be associated with a further degradation of family management.

A third explanation involves adolescents' increased need for autonomy. In one study, adolescents' delinquency resulted in less parental control and support (Kerr & Stattin, 2003) and in another study, smoking weakened parents' smoking-specific rules (Huver et al., 2007). In these two studies, the authors argued that parents interpreted their adolescents' behaviors as an indication that they needed more autonomy. As a consequence, parents responded by relenting and reducing their attempts to change their adolescents' behaviors.

A fourth explanation is concerned with parents' tolerance of problematic behaviors. A study by Reitz and colleagues (2006) showed that delinquency in adolescents resulted in decreases in parents' warmth. The authors argued that the reduction in parental control seen in other studies might mediate the link between adolescents' delinquency and reductions in parental warmth. They speculated that when adolescents' behaviors become more problematic, parents become more tolerant and subsequently reduce their control. Once they have reduced their control, they might become discouraged and less motivated to act responsively toward their adolescents.

Finally, one explanation concerns parents' desperation to rein in their adolescents' behaviors. In a study conducted by Albrecht and colleagues (2007), parents reacted to adolescents' internalizing and externalizing behaviors with increased psychological control. The authors discussed different explanations for this finding. One idea was that parents might have reacted in desperation because no other strategy had been effective in modifying their adolescents' behaviors. However, it was also argued that the same reactions might be an indication of parents' good faith, i.e. that they actually thought that these reactions would have positive effects on their adolescents' behaviors.

The explanations above concern parents' reactions to their adolescents' problematic behaviors. All of these explanations, however, were suggested post-hoc. One important limitation of post-hoc explanations is that they are often speculative and do not place results in a broader context. Moreover, the constructs involved in the explanation are often not measured and analyzed. Thus, our understanding is restricted by such post-hoc explanations.

In at least two studies, researchers have adopted an a priori approach to examining parents' reactions to adolescents' problematic behaviors. The first study examined how parents reacted to problematic behaviors (such as, manipulateness, defiance, and lying) in the home (Kerr & Stattin, 2003). In this study, the authors showed that negative behaviors in the home resulted in decreased control and solicitation. To explain these reactions, four possible ideas were presented: parents might (1) ignore the need to monitor, (2) view their adolescents' behavior as intimidating, (3) avoid getting anxiety-provoking information, and (4) think that problematic behaviors are a normal part of adolescence, which they cannot do much

about. The results of this study provided most support for the idea that parents feel intimidated by problematic behaviors in their adolescents, and, to avoid conflicts, they monitor their adolescents less. In the second study, the authors used the results of the study above to construct hypotheses (Kerr et al., 2008). They posited three possible explanations for parents' reactions: (1) parents believe that their children need autonomy, (2) parents feel intimidated, and (3) parents respond to specific characteristics in adolescents – open versus closed (i.e. whether or not their adolescents are open for communication and show interest in their parents), and warm versus cold (e.g. whether or not their adolescents are warm and show the parents affection). The results offered evidence for the last explanation: parents seemed to respond to their adolescents' specific characteristics. Specifically, if adolescents were perceived as cold and closed, parents decreased their support and control. On the other hand, if adolescents were perceived as warm and open, parents increased their support and control. These two studies suggest that adolescents' characteristics and parents' feeling intimidated by their adolescents' behaviors were important factors in explaining parents' reactions when they faced problematic behaviors.

In sum, there are both a priori and post-hoc explanations for parents' reactions. These explanations encompass some aspects of parents' cognitive processes, such as interpretations of their adolescents' needs for autonomy, and feelings that their adolescents' behaviors are threatening and intimidating. However, there is a need to develop theoretical models where parents' cognitions are treated as the main mechanisms underlying their reactions to problematic behaviors in their adolescents.

Parents' cognitive processes

In many studies that have examined how adolescents influence their parents, there is little or no consideration of how parents' thoughts about their adolescents' behaviors are related to their own behaviors. As far back as 1979, Bell argued that parents do not respond in a mechanical way to their adolescents' behaviors, and he suggested that researchers should construct models that accommodate parents' cognitive processes when studying the socialization process. Although there is reason to examine the direct effects children have on their parents' behaviors, there is still a need to build models that include parents' cognitive processes as mechanisms explaining their reactions.

Becoming a parent often changes the way people think about themselves, and it is important to note that parents keep developing. For example, it is suggested that parents go through different cognitive stages of development, which normally represent their views on differentiation between themselves and their children (for a review, see Demick, 2002). This means that parents' cognitions are not static, but change over time, and children's behaviors might play a role in such changes. Studying parents' cognitions might contribute to understanding why parents respond as they

do to adolescents' problematic behaviors. Regarding this, two concepts might be of particular importance, *parents' attitudes* and *parents' attributions*.

Parents' attitudes. One area of parenting research that has received a good deal of attention is parents' attitudes about childrearing practices (Holden & Buck, 2002). Attitudes can be viewed as internal states that influence people's cognitive, affective, and behavioral responses. It is often assumed that a person's attitudes are followed by overt behaviors (Eagly, 1992). In contrast, early research on parents' attitudes attempted to connect parents' attitudes to their *children's* behaviors (Bell, 1979; Holden & Buck, 2002). What was lacking was the connection between parents' attitudes and their parenting strategies. Later research included parental behaviors as a mechanism to explain the link between parents' attitudes and children's adjustment. One example concerns parents' attitudes toward adolescent drinking, which have been linked to stricter rules, and, in turn, to less adolescent drinking (Van Der Vorst, Engels, Meeus, & Deković, 2006). In sum, parents' attitudes might explain their choices of socialization strategies.

Further, there has been a discussion about what can influence attitudes. For example, attitudes might be formed and modified by information about the issue that an attitude concerns (Eagly, 1992). Concerning parents, in early research, it was argued that parents' attitudes were static. This view, however, has been challenged (Holden & Buck, 2002). As part of how children influence the way they are parented, children's behaviors may make parents change their attitudes as well as their behaviors. This idea has rarely been examined in the literature, and lies beyond the general focus, namely that parents' attitudes influence children's adjustment through their parenting strategies (Holden & Buck, 2002). Thus, parents' attitudes might change over time, and it is possible that children have an active role in these changes.

Parents' attributions. The area of parental attributions has also been a focal area of interest. Attributions are speculations about the reasons why events have occurred, are occurring, or will occur. "In doing so [making attributions], we facilitate our ability to understand, predict, and effectively function within relationships" (Bugental & Happaney, 2002, p. 509). Thus, attributions help us to understand the environment in which we are embedded. Parents' attributions may be viewed as filters, used by parents, to assign meanings to the behaviors and characteristics of their children, and also their own behaviors (Bugental, Johnston, New, & Silvester, 1998). One issue that has gained much attention concerns the sources of parents' attributions. Parents may be influenced by experiences with their own parents, and by experiences of raising their own children (Bugental & Happaney, 2002). They may also be informed by having seen their siblings and friends being parented. Thus, by making attributions, parents try to understand the reasons for their own behaviors and their children's

behaviors. Further, these attributions can be expected to come from a variety of sources.

Some parents show distinctive attributional patterns that are different from attributions among parents in general. These patterns are regarded as invariant across situations, and influence the ways parents think about their adolescents' behaviors and themselves (Bugental et al., 1998; Johnston & Ohan, 2005). First, some parents have been shown to have certain ways of thinking about the causes of their children's behaviors. For example, parents of children with ADHD often view their children's negative behaviors as internal and stable, but at the same time as things that the child cannot control (Freeman, Johnston, & Barth, 1997; Johnston & Freeman, 1997; Johnston & Ohan, 2005). When parents think in this way, they assume less responsibility for their children's misbehaviors, just like parents of children with ADHD, whose attributions may often be self-serving or positively biased, and where their own role and their children's control are underrated. This attributional pattern is different from how parents in general think about the issue. Generally, parents tend to view children's positive behaviors as something internal, and attribute positive behaviors to stable, controllable, and intentional conditions. In contrast, they tend to view negative behaviors as external and attributable to unstable, uncontrollable, and unintentional conditions (Weiner, 1985; for a review, see Miller, 1995). Thus, parents of children with ADHD seem to show a pattern of attributions about themselves and their children's behaviors that differs from other parents. Second, some parents show specific ways of thinking about caregiving successes and failures. According to this literature, some parents view their children as having more control and themselves as having less control over successes in their caregiving (Bugental, Mantyla, & Lewis, 1989; Bugental & Shennum, 1984). Hence, some parents tend to view themselves as lacking control, and their children to be in control, of their parenting outcomes. Further, these biased attributions might influence their parenting behaviors. According to the social cognitive model of parenting, parents' attributions mediate the link between their children's behaviors and their own responses to these child behaviors (e.g. Dix et al., 1986; Dix, Ruble, & Zambarano, 1989). This model suggests that parents are motivated to understand the reasons for their children's behaviors, which guides their responses. In sum, some parents have been shown to make specific attributions about the causes of their children's behaviors and their own control in caregiving successes and failures, which, in turn, might influence the way they behave toward their children.

What is missing?

To summarize, empirical studies suggest that parents tend to react to problematic behaviors in ways that might influence their adolescents' adjustment negatively. However, there are some missing pieces in this research area. First, there is still much unknown about *why* parents react as they do

to problematic behaviors. One reason is the lack of theoretically based ideas about the results that have been presented. As I have reported, most explanations have been offered post-hoc and few studies have had an a priori approach to examine parents' reactions. This is an important distinction. When a priori, rather than post-hoc, approaches are adopted, the reliance on theory places findings in a broader context. This helps to promote a deeper understanding of the parent-child relationship and why parents react as they do. A second missing element is that few underlying mechanisms have been investigated with regard to how child effects operate. Because many of the explanations for empirical results have been offered post-hoc, researchers have not explicitly articulated and tested mechanisms describing how adolescents influence their parents. In general, mechanisms involving different parental processes, such as cognitions, emotions, and attitudes, might be particularly important for understanding why parents react as they do to the problematic behaviors in their adolescents. Third, the majority of theories about child effects have focused on children, not on adolescents. Consequently, there is less information about how adolescents influence their parents. It is possible that the processes operating among parents of adolescents with problematic behaviors are different from the processes operating among parents of children with problematic behaviors. Overall, it is clear that broader theoretical models explaining how and why adolescents' behaviors influence parents' cognitions and their subsequent behaviors are missing from research on the parenting of adolescents.

Theoretical ideas about parents' cognitive processes and their reactions to problematic behaviors in their adolescents

There are different ways of theorizing about how parents' cognitions might drive their reactions when they are faced with problematic behaviors in their adolescents. This section illustrates two ways of thinking about this process.

Cognitive dissonance theory

The theory of cognitive dissonance was introduced by Festinger (1957), who proposed that when people experience conflicts between their cognitions, they experience an uncomfortable emotional state, called cognitive dissonance. Cognitive dissonance is characterized by psychological distress, and it is argued that people have a motivational drive to reduce it. To be able to eliminate the distress, people have to change one of these cognitions to obtain consistency between them. In one of his most famous cases, Festinger and his colleagues (1956) followed a group of people who believed in an end-of-the-world prophecy. However, the world did not end as pre-

dicted, creating dissonance among the group members, because they were faced with irrefutable evidence that the prophecy was wrong. The group was then given an explanation why the world did not end: God had saved the world because their group had shown such strong beliefs. This explanation allowed incongruent beliefs to be altered and reduced dissonance. As a result, the groups' beliefs grew stronger, rather than weaker. The most commonly used example to illustrate cognitive dissonance concerns smoking. Today, it is widely accepted that smoking has negative health effects. Despite this, many people smoke every day. According to dissonance theory, smoking is dissonant with the knowledge that it is dangerous for one's health. This should produce dissonance, which people might resolve in different ways: (1) quit smoking, (2) deny the evidence that smoking is dangerous, or (3) justify their own smoking. Research has shown that people tend to compare their own smoking with others' smoking and reach the conclusion that their own risk of negative consequences is lower than that of other people (McMaster & Lee, 1991; Tagliacozzo, 1979). In addition, people who smoke seem to minimize or deny the risks of smoking (Halpern, 1994), and similar results have been found for alcohol drinking (Mäkelä, 1997). These findings suggest that people change their cognitions to fit their behaviors, rather than changing their behaviors to fit their cognitions. An explanation for this might be that it is often easier to make an excuse than to change a behavior. Thus, according to cognitive dissonance theory, people at times experience dissonance between their cognitions, and to eliminate this dissonance they change one to fit the other. Applied to parenting, during adolescence, parents might face disagreements between their perceptions of their adolescents' behaviors and their attitudes to these behaviors. Cognitive dissonance reduction might explain how parents deal with such disagreements.

Bugental's parental attribution model

Bugental presented her parental attribution model as a transactional model of parental physical abuse, which added parental cognitions to existing models (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984). This model suggests that parents' beliefs about the sources of their successes and failures in caregiving situations are important for explaining their behaviors toward their children. Bugental noted that, although many children have characteristics that make them difficult for parents to handle, not all parents react abusively. The parental attribution model was developed as an attempt to explain why parents differ in this respect. Bugental identified four categories of parents, based on whether they believed that their children's behaviors were uncontrollable or controllable, and whether the source of control was thought of being located within the parent or the child. Built into these categories was also information about whether the outcomes dealt with successes or failures in caregiving situations. The categories were: (1) parents who perceived themselves as having control, and

their children as not having control, over caregiving successes, (2) parents who perceived themselves as having control, and their children as not having control, over caregiving failures, (3) parents who perceived their children, rather than themselves, as having control over caregiving successes, and (4) parents who perceived their children, rather than themselves, as having control over caregiving failures (Bugental, Blue, & Cruzcosa, 1989; Bugental & Shennum, 1984). The main argument is that, if parents perceive their children, rather than themselves, as having control over caregiving failures, they will use negative parenting strategies. Bugental argued that these parents view problematic behaviors in children as threatening and, as a result, they respond with more negative behaviors than parents with a higher sense of control (Bugental & Cortez, 1988; Bugental, Mantyla, et al., 1989). Thus, using parents' sense of control as the main explanatory factor, this model explains why some parents are likely to abuse their children.

The ideas underpinning this model have been tested and confirmed empirically, using adults and their own and unrelated children. Bugental and her colleagues have shown that adults who have a low sense of control are more sensitive to difficult behaviors in children (i.e. showed higher heart rates, Bugental & Cortez, 1988), and respond with more negative feedback in adult-child interactions (Bugental, Caporael, & Shennum, 1980; Bugental, Lewis, Lin, Lyon, & Kopeikin, 1999), than adults who feel they are in control. Further, parents who view themselves as having less, and their children as having more, control over caregiving failures tend to use more abusive and coercive disciplinary strategies with their children (Bugental, Mantyla, et al., 1989) than parents who perceive themselves as having more control. Finally, in two prevention studies, parents were given tools for finding new ways of explaining problems, rather than blaming either themselves or their children (Bugental, Ellerson, Lin, Rainey, Kokotovic, & O'Hara, 2002; Bugental & Schwartz, 2009). The results showed that parents in the prevention group increased in their sense of control and they were less likely to physically abuse their children, than were parents in the control group. Thus, empirical evidence supports the proposition that parents with a low sense of control respond to problematic child behaviors with more negative behaviors than parents with a high sense of control. However, the ideas underlying this model, and also the empirical evidence, have concerned parents of children, not parents of adolescents. Concerning parents of adolescents, the results imply that it might be important to include how parents think about their adolescents' behaviors and their own role when explaining their reactions to problematic behaviors.

II This dissertation

In this section, I present working models, which were developed for this dissertation, concerning how adolescents influence their parents. In these models, I aimed to explain why parents react as they do to problematic behaviors. Specifically, why do parents reduce strategies that most likely have positive effects on their adolescents' adjustment and why do they increase in behaviors that probably have a negative influence? To answer this question, I focused on parents' thoughts about their own role, their own adolescents' behaviors (i.e. target-based beliefs), and adolescents' behaviors in general (i.e. category-based beliefs, Buchanan, Eccles, Flanagan, Midgley, Feldlaufer, & Harold, 1990). From this, I developed and tested ideas about the mechanisms that might explain parents' reactions to their adolescents' problematic behaviors. These mechanisms are based on the theories described above. To test their applicability, three analytical models were used, all of which have been proposed for the study of child effects: main effects, mediational processes (child behaviors leading to a kind of parenting via a certain mediator), and moderating factors (child behaviors associated with parenting under certain circumstances) (Shanahan & Sobolewski, 2003). Below, I present the studies that are included in this dissertation.

Study I

One of the questions relevant to this dissertation is whether adolescents' behaviors influence their parents' attitudes. One theory, cognitive dissonance (Festinger, 1957), was used to answer this question. In the first study, the ideas in cognitive dissonance theory were used to develop a model for the purpose of testing how adolescents' drinking influence parents' attitudes. Parents of children in early adolescence usually view underage drinking as problematic (Beck, Scaffa, Swift, & Ko, 1995), and the majority of parents of young adolescents report themselves as being opposed to underage drinking (Van Der Vorst et al., & 2006). In contrast to what might be expected, given their stance against drinking, parents seem to react to adolescents' drinking by *reducing* their control (Huh et al., 2006; Stice & Barrera, 1995) and support (Stice & Barrera, 1995). Why parents respond in this way, however, is still unknown.

Applying the ideas from dissonance theory, when parents encounter their adolescents intoxicated, their strict attitudes toward adolescent drinking are challenged by their adolescents' behavior. In essence, their attitudes reflect ideals for their adolescents, and their adolescents' actual behavior is in dissonance with these ideals. Holding these dissonant cognitions evokes distress and parents are motivated to reduce the dissonance. Parents could do this in at least two different ways. First, they could use strategies to reduce their adolescents' drinking, such as increasing control over their adolescents' free time. If this strategy makes their adolescents drink less,

their actual behavior would be consistent with the expected behavior. Alternatively, parents could change their own attitudes toward adolescent drinking and become less restrictive. This would make their attitudes, and thus their expectations for their adolescents' behavior, consistent with their adolescents' actual behavior. Which approach is more likely? From the literature on cognitive dissonance and substance use, it is expected that parents would change their attitudes because it is probably easier to change one's own attitudes than to change one's own or someone else's behavior. Thus, in this study, it was expected that parents would change their attitudes to adolescent drinking rather than increasing control behaviors aimed at changing their adolescents' behavior. Further, the change in attitudes should, according to this theory, eliminate the dissonance and result in reduced distress. In other words, parents who became less restrictive to adolescent drinking should be less distressed than parents who maintained their strict attitudes to adolescent drinking. Thus, in line with cognitive dissonance theory, parents were expected to become less restrictive to adolescent drinking after they had encountered their adolescents intoxicated. Further, it was expected that this change in attitudes would be linked to reduced distress.

Study II

Another idea in this dissertation concerns how parents' attributions about their own roles and their adolescents' behaviors might explain how they respond to their adolescents' problematic behaviors. For the second study, my co-authors and I constructed a comprehensive model to explain parents' reactions to their adolescents' behaviors. In this model, we used one set of adolescent behaviors that has been shown empirically to be especially difficult for parents to deal with.

The behaviors exhibited by children with attention deficit/hyperactivity disorder (ADHD) are difficult for their parents to handle. Their parents report higher levels of stress (e.g. Johnson & Reader, 2002; Mash & Johnston, 1983; Reader, Stewart, & Johnson, 2009) and greater dissatisfaction with their roles as parents (Lange et al., 2005; Podolski & Nigg, 2001) than other parents. In addition, ADHD has been linked to increases in maternal hostility (Lifford, Harold, & Thapar, 2009) and rejection (Lifford, Harold, & Thapar, 2008). Further, families with a child who has ADHD report more negative interactions than other families (Barkley, Anastopoulos, Guevremont, & Fletcher, 1992; Barkley, Fischer, Edelbrock, & Smallish, 1991; Schroeder & Kelley, 2009; Whalen et al., 2006). Thus, the behaviors in children with ADHD are problematic for parents. The question is what it is about the behaviors of these children that make them particularly difficult for parents to deal with.

One explanation concerns parents' perceptions of how their children respond to their parenting efforts. According to Quay (1988, 1997), children with ADHD are low on responsiveness to signals and cues of possible

punishment. This idea has received empirical support (for a review of the empirical findings, see Luman, Oosterlaan, & Sergeant, 2005). Because children with ADHD seem to be unresponsive to signals of punishment, this should influence their interactions with other people, such as their parents. This has not been demonstrated in earlier research. However, based on the idea proposed by Quay, parents of adolescents who display ADHD can be expected to perceive their adolescents as unresponsive to their attempts to correct them. In this study, we used the concept of hyperactivity, impulsivity, and attention problems (HIA) to refer to ADHD symptoms in the general population. At the first step of our theoretical model, we postulated that parents would perceive their adolescents with HIA as unresponsive to correction. The next step was to determine how parents respond to this perception.

We built the second part of our model on ideas about parents' reactions to problematic behaviors more generally and about parents' attributions. First, it is possible that parents would reduce their control and solicitation as a reaction to their perception that their adolescents are unresponsive to correction. This idea was based on previous studies of parents' reactions to problematic behaviors more generally (e.g. Albrecht et al., 2007; Hipwell et al., 2008; Huh et al., 2006; Huver et al., 2007; Kerr & Stattin, 2003; Kerr et al., 2008; Stice & Barrera, 1995). Second, in accordance with Bugental's parental attribution model (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984), parents may react to their adolescents' lack of response to their corrections by increasing in feelings of powerlessness about raising them. Thus, adolescents' unresponsiveness to correction was expected to explain the link between HIA and parents' feelings and behaviors. In this part of our model, we also posited ideas about when and how parents translated their feelings of powerlessness into the ways they behaved toward their adolescents. According to Bugental's attribution theory, parents with a low sense of control tend to behave negatively toward their children. From this idea, we predicted that parents' feelings of powerlessness would be associated with them showing negative behaviors toward their adolescents. As a way of modifying their feelings without resorting to abusive behaviors, parents might decrease their control and solicitation.

To conclude, in our theoretical model as a whole, we proposed that adolescents' HIA should make their parents perceive them as unresponsive to attempts of correction. In addition, this perception was expected to make parents feel powerless or decrease in control and solicitation. Finally, feelings of powerlessness should result in negative parenting behaviors or reductions in control and solicitation.

Study III

The ideas underlying the third study were based on the ideas of the second study, where HIA is expected to be associated with parents' feelings of powerlessness. Using Bugental's attribution model (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984), we examined how parents dealt with HIA in their adolescents, but we included a new aspect—parents' experiences of having raised their older children. It is unknown if parents' reactions to HIA are dependent on their earlier experiences with another child within the same family, and this was the main focus of this study. From a family system perspective (Minuchin, 1974), it is expected that what happens in one system (e.g. parents' relationship with their older children) will influence what happens in another closely, related system (e.g. parents' relationship with their younger children). Some general models have been presented aiming to explain how parents make use of their experiences from having raised a child before. In this study, we used these models as a base to develop hypotheses about how parents deal with HIA in their adolescents.

The first model that has been offered is the learning-from-experience model. According to this model, parents learn effective strategies from raising their older children and this make the relationship with their younger children better than the relationship they have with their older children (Whiteman, McHale, & Crouter, 2003). Consistent with this model, parents tend to have fewer conflicts with (Whiteman et al., 2003), show more warmth toward (Shanahan, McHale, Crouter, & Osgood, 2007), give more autonomy to (Wray-Lake, Crouter, & McHale, 2010), and have greater knowledge about (Whiteman et al., 2003) their younger children than their older children. Another model that has been offered is the spillover model, which suggests that parents' challenges with their older children are transferred into the ways they parent their younger children, which means that they will have a negative relationship with their younger children (Shanahan, McHale, Osgood, & Crouter, 2007). The few studies on this topic have offered empirical support for the spillover idea. First, in one study, parents' conflicts with their older children were linked to conflicts with their younger children (Shanahan, McHale, Osgood, et al., 2007). In another study, parents' negative experiences with their older children were associated with their expectations of problems with their younger children (Whiteman & Buchanan, 2002). In sum, according to the learning-from-experience model, parents learn from their experiences of having raised their older children, and this make parents better to deal with problems in their subsequent children. In contrast, according to the spillover model, parents' negative experiences with their older children tend to negatively affect their interactions with their younger children.

Both the learning-from-experience model and the spillover-model have one important limitation—they do not take into account the variations in parents' perceptions of and experiences with their children. Parents

probably behave differently toward their younger children depending on the type of experiences they have had with their older children. In addition, parents' experiences with their older children might influence their parenting of their younger children differently depending on the younger children's behaviors. Concerning parents' reactions to problematic behaviors, Bugental's model (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984) put emphasis on parents' sense of power when encountering problematic child behaviors. In this case, it is possible that parents' sense of power is influenced by their experiences of having raised their older children. Consequently, it is important to acknowledge variations in parents' experiences and perceptions of their children's behaviors when trying to understand how and why they react as they do to HIA in their adolescents.

From these literatures, we developed hypotheses for the third study. First, in line with Bugental's model (Bugental et al., 1989; Bugental & Shennum, 1984), we hypothesized that HIA should be associated with parents' feelings of powerlessness. This should apply to parents in general, regardless of whether or not they had raised a child before. Thus, the experience of having raised a child before should not be central for parents' reactions to HIA. Their *perceptions* of this experience, on the other hand, should be of greater importance for their reactions to HIA in their younger children. This idea was formulated in the two subsequent hypotheses, which were based on the two general models presented above.

From a learning-from-experience hypothesis, it is expected that parents should learn better strategies that will help them handle challenging behaviors in their younger children. We suggested that parents who encountered HIA in their older children should be better equipped to handle HIA in their younger children and should therefore feel less powerless about these children. Thus, according to this hypothesis, parents who had older children with HIA should not feel particularly powerless about their younger children with HIA.

From a spillover hypothesis, it is expected that parents who feel powerless about their older children with HIA will feel powerless also about their younger children with HIA. However, more generally, even if the older children do not have HIA, parents' feelings of powerlessness about these children should be associated with their feelings of powerlessness about their younger children with HIA. Thus, according to this hypothesis, parents who had negative experiences with their older children (either only feelings of powerlessness or powerlessness connected to the older children's HIA) should feel particularly powerless about their younger children with HIA.

In sum, parents' sense of power when encountering HIA in their younger children was expected to be dependent on the type of experience they have had with their older children—including parents' feelings of powerlessness and these children's HIA.

III The aim of this dissertation

The aim of this dissertation is to present and test theoretical ideas designed to explain how adolescents influence their parents. The studies in the dissertation focused on parents' reactions to adolescents' problematic behaviors, and addressed different aspects of parents' cognitions that might explain their reactions. Four broad questions are posed in this dissertation:

1. How can theoretically based working models be developed to explain parents' reactions to adolescents' problematic behaviors? (Study I, Study II, Study III)
2. What is the role of parents' cognitive-emotional processes in explaining their reactions to adolescents' problematic behaviors? (Study I, Study II, Study III)
3. What are the roles of moderating conditions and mediating processes for explaining how parents react to adolescents' problematic behaviors? (Study I, Study II, Study III)
4. Do parents' prior experiences play a role in their reactions to adolescents' problematic behaviors? (Study III)

IV Method

Participants and procedures

The samples for this dissertation were derived from a 5-year community-based project, “10 to 18,” which included all adolescents aged between 10 and 18 (corresponding to fourth through twelfth grade) and their parents in a mid-sized town in Sweden (about 26,000 inhabitants at project start). The aim of the broader project was to understand the development of problematic behaviors among children and adolescents. Average annual income in the town (20,390 US dollars/person) was about the same as in the country as a whole (20,960 US dollars/person). Altogether, 11.8% of the inhabitants were born outside the country (compared with 8.4% for the whole country), and the unemployment rate was 6.5% (compared with 5.8% for the whole country).

Before the project started, a University Ethics Board approved the study and all its procedures. Principals from 13 schools were asked if they wanted their schools to participate, and all agreed. Parents were informed about the data collections in advance through meetings held in the community and through information given by the schools. In addition, parents could refuse to allow their adolescents to participate in the project (only 1% did so). Neither parents nor adolescents were paid for participating in the project, but a lottery for movie tickets was held in each class, and a contribution was made to class funds.

Each year (starting in 2001), all children and adolescents in the community answered questions about their home situations, leisure time activities and school experiences. Every year, one new age cohort was included in the project (children entering fourth grade), and one age cohort left the project (adolescents who graduated from high school the year before). Trained research assistants distributed questionnaires to the adolescents in their classrooms. No teachers were present at any time during the sessions. Before filling in the questionnaires, adolescents received information about confidentiality, and were told that it was voluntary to participate in the study. If some adolescents did not want to participate, they were allowed to stay in the classroom and do something else. All adolescents were included in the drawings of movie tickets, even if they did not filled in the questionnaire. At the first wave of data collection, 2,721 adolescents (87% of the target sample) participated in the project. Every second year (at W1, W3, and W5) we sent a questionnaire home to the adolescents' parents, and a request was made for one of the parents (or both parents together) to fill it in. The questions were about their own behaviors and their perceptions of their adolescents' behaviors. At the first data collection, 1,225 parents (75% of the target sample) filled in the questionnaire.

Sample for Study I

The analytic sample for Study 1 consisted of combined data from two waves. The reason for this was to maximize the sample size and increase power in the analyses. We started out by selecting adolescents who were 13 and 14 years old at either Wave 1 or Wave 3, and we used their information again two years later. Hence, the 13 and 14 year-olds at Wave 1 were followed to Wave 3, when they were 15 and 16 years old, and the 13 and 14 year-olds at Wave 3 were followed to Wave 5, when they were 15 and 16 years old (from here on we label the first data occasion T1, and the second T2). This procedure gave 1,373 adolescents, and 937 (68%) of their parents participated in the project.

For this study, we selected the sample in three steps. First, we selected the parents who had not encountered their adolescents intoxicated at T1 ($n = 870$, or 93%, of the parents who answered this question at T1). Second, we only used reports from the parents who were most opposed to adolescent drinking. At T1, 700 parents chose the most restrictive response option to a question about their attitudes to adolescent alcohol drinking (the description of this measure follows), which represented 75% of the parents who answered this question at T1. The choice not to include parents with more lenient initial attitudes was based on ideas from cognitive dissonance theory (Festinger, 1957). When we limited the sample to parents with the strictest initial attitudes, we maximized the possibility of parents experiencing dissonance if they encountered their adolescents intoxicated. By T1, 658 parents had not encountered their adolescents intoxicated *and* had the most restrictive attitudes, which represented 70% of the parents who answered both these questions at that time. Third, being included in the sample, parents needed to have answered both these questions (about their attitudes to adolescent drinking and whether they had encountered their adolescents intoxicated) also at T2 ($n = 494$, 75% of the 658 parents who had information at T1).

Concerning the characteristics of this sample, about 72% of questionnaires were filled in by mothers, 13% by fathers, and the rest by both parents together or by another caretaker. At T1, 69% of these adolescents lived in two-parent households. For 92% of the adolescents, one or both parents were employed full-time; and for 84%, one or both parents were born in Sweden. Among the adolescents, 90% were born in Sweden.

Sample for Study II

For the second study, we used a sample of 706 adolescents (376 boys and 330 girls). In this study, we used data from Waves 1, 2, and 3, whose time points we will refer to as T1, T2, and T3. All of the adolescents had parent reports at T1. In addition, most of these adolescents had parent data at both T2 *and* T3 ($n = 613$), whereas some had data at T2 *or* T3 ($n = 93$).

The adolescents were 10, 11, and 12 years old at T1, and we followed them until they were 14, 15, and 16 at T3.

The majority of the parent questionnaires in this sample were filled in by mothers (71.3%, 74.6%, and 76.6% at T1-T3, respectively). The rest were filled in by fathers (14.8%, 13.8%, and 14.6%, at T1-T3, respectively), mothers and fathers together (12.8%, 11.1%, and 8.1% at T1-T3, respectively), or another caretaker (1.1%, 0.5%, and 0.7% at T1-T3, respectively). Most of the adolescents lived in two-parent households (69.4%, 66.1%, and 55.9% at T1-T3, respectively) with at least one parent employed full-time (96.9%, 90.2%, and 95.3% at T1-T3, respectively). Ninety-three percent of the adolescents were born in Sweden, and for 89.9%, one or both parents were born in Sweden.

Sample for Study III

For the third study, we used two sub-samples of parents, gathered from the first wave. The first sub-sample included parents with only one child between 10 and 14 years old ($M = 11.92$). In total, 529 parents fulfilled this criterion, and 372 (70%) of these had parent data on the variables used in the study: HIA and unresponsiveness to correction in their adolescents, and parents' feelings of powerlessness. Of the adolescents, 182 were boys and 190 were girls. In this sample, 70% of the questionnaires were filled in by mothers, 11% by fathers, and 17% by fathers and mothers together (the rest, 2%, were filled in by another relative or caretaker). In the majority of the families (86%), one or both parents were born in Sweden, and 88% of the adolescents were born in Sweden.

The second sub-sample included first-born children (hereafter referred to as older children) between 13 and 16 years old ($M = 14.35$ years), and second-born children (hereafter referred to as younger children) between 10 and 14 years old ($M = 11.89$ years). In total, there were 560 parents fulfilling this criterion. Of these, 252 (45%) had their children within 2 or 3 years of each other. We used this as an eligibility criterion because if siblings are close in age, parents should be better able to apply their experiences from their older children to their younger children. Out of these 252 parents, 198 (79%) parents had data on the variables used in the model and were therefore included in the sample. Of the sibling pairs, 113 were same-sexes and 85 opposite-sexes. Among the younger children, 111 were boys and 87 were girls. Among the older children, 102 were boys and 96 were girls. Mothers (69%) filled in the majority of the questionnaires. The rest were filled in by fathers (15.8%), or by both fathers and mothers together (15.2%). The sample used in this study was quite homogenous in terms of demographic data. The majority of the adolescents were born in Sweden (94% of the older and 96% of the younger children), and 83% were living in two-parent households. In 94% of the families, one or both parents were born in Sweden, and in 98% of the families, one or both parents had full-time employment.

Measures

In the studies in this dissertation, we used mainly parent reported measures that were developed to capture parents' perceptions of their adolescents' behaviors and about their own parenting. Cronbach alphas for all the measures used in the studies are presented in Table 1.

Parents' behaviors

Parents' opposition to adolescents' alcohol use. Parents were asked which of four descriptions best reflected their attitudes to adolescent drinking (Kerr et al., 2008; Koutakis, Stattin, & Kerr, 2008). The first description was *"It is natural for adolescents our son or daughter's age to be curious about trying alcohol. We trust that our son/daughter drinks in a responsible way."* The second description was *"An adolescent our son or daughter's age is adult enough to be responsible for his/her actions. If they want to drink alcohol, they will, regardless of what parents do or say. We have given our son/daughter alcohol to drink at home, so it will not be as exciting. Hence, we know what he/she is drinking, and the risk that he/she will get home-distilled alcohol or drugs is lessened."* The third description was *"We think it is totally unacceptable for our son/daughter to drink alcohol outside the home. On the other hand, we have allowed our son/daughter to taste wine or beer when we are having it with a weekend dinner or something like that."* The fourth description was *"An adolescent our son or daughter's age is way too young to drink alcohol at all. We think it is obvious that adolescents under 18 years should not concern themselves with alcohol."*

Parental distress. To measure parental distress about their adolescents' problematic drinking, parents were asked: "Are you worried that your adolescent will start to abuse alcohol?" This question was included in a broader scale measuring parents' worries about different behaviors in adolescents, which has been used and validated in earlier studies (Kerr et al., 2008). The response scale ranged from 1 (*No, not at all*) to 5 (*Yes, very much*).

Parents' feelings of powerlessness. Five questions were used to measure parents' perceptions of their inability to change their adolescents' problematic behavior. This measure focuses on parents' sense of powerlessness in their parenting and is similar to other scales in this area (e.g. the Parent Attribution Test, Bugental & Shennum, 1984). The items in this scale were: "Have you had such big problems with your adolescent that neither reprimands nor discussions work," "Have you ever felt powerless and thought there was not much you could do about the problems you were having with your adolescent," "Do you feel that you have tried absolutely everything to correct your adolescent's behavior, but nothing has

helped,” “Have you ever during this term felt that it didn’t matter what you said, the adolescent would do whatever he/she wanted anyway,” and “Have you ever during this term been on the border of giving up – felt that there was nothing you could do about the problems you had with the adolescent?” These items were standardized before creating the measure. Parents answered on a scale from 1 (*Has not happened / Disagree*) to 4 / 5 (*Yes, very often / Totally agree*).

Parents’ worries. We used a scale with three questions to measure parents’ worries about their children: “Are you worried that the child will not make it in school,” “Are you worried that the child will end up with bad friends,” and “Do you worry about what the child is doing together with friends on evenings and weekends?” This scale has been used and validated in earlier studies (Kerr et al., 2008). Parents responded on a Likert scale ranging from 1 (*Yes, very much / Yes, always*) to 3 (*No, not at all / No, never*).

Encountering the adolescent intoxicated. Parents were asked: “Have you ever encountered your adolescent drunk?” (Kerr & Stattin, 2000). The response options were 1 (*No, has not happened*), 2 (*Yes, once*), and 3 (*Yes, two or more times*). We dichotomized this measure to differentiate parents who had encountered their adolescents intoxicated at least once (coded 1) from those who had not (coded 0).

Parental monitoring. In this study, we used the control and solicitation measures by Kerr and Stattin (2000) to measure parents’ monitoring efforts. The *Control* scale consisted of five questions concerning setting and enforcing rules that require adolescents to give information about their activities away from home. The items were: “Does your adolescent need to have your permission to stay out late on a *weekday* evening,” “Does your adolescent need to ask you before he or she can make plans with friends for a Saturday evening,” “If your adolescent has been out past curfew, do you require him or her to explain what he or she has been doing and whom he or she has been with,” “Does your adolescent have to tell you where he or she is at night, whom he or she is with, and what he or she is doing,” and “Before your adolescent goes out on a *Saturday* night, does he or she have to tell you where he or she is going and with whom?” The response options for the control scale ranged from 1 (*No, never*) to 5 (*Yes, always*). The *Solicitation* scale consisted of five questions about parents’ attempts to get information about adolescents’ whereabouts. The questions for this scale were: “Has it happened this month that you have been in contact with and talked to the parents of your child’s friends,” “How often do you talk to the child’s friends when they come home to you,” “During the past month, how often have you started a conversation with your adolescent about his or her free time,” “How often do you ask the child to sit down and tell what has happened on an ordinary day in school,” and “Do you usually ask your adolescent to talk about things that happened during his or her free time (whom he or she met when out in the city, free time

activities, etc.)?” For the solicitation scale, parents answered on a Likert scale ranging from 1 (*Several times a week / Almost always / Very often*) to 5 (*No / Never / Not this month / Almost never*).

Negative parenting behaviors. Three scales measured parents’ negative behaviors and were developed within the project (Kerr, Stattin, & Trost, 1999; Persson, Stattin, & Kerr, 2004; Tilton-Weaver, Kerr, Pakalniskeine, Tokic, Salihovic, & Stattin, 2010). The first scale assessed whether parents reacted with *coldness and rejection* when their adolescents had done something against their wishes. The statements from the coldness-rejection scale were: “[My father/mother] is silent and cold toward me,” “[My father/mother] ignores me if I try to explain,” “[My father/mother] doesn’t talk to me until after a long while,” “[My father/mother] makes me feel guilty for a long time,” and “[My father/mother] avoids me.” The second scale measured *parental warmth*. These items were: “[My father/mother] shows with words and gestures that he/she likes me,” “[My father/mother] always brings up the positive and seldom the negative things I do,” “[My father/mother] does small things to make me feel special (e.g. blink, smile),” “[My father/mother] constantly show how proud they are of me,” “[My father/mother] always show their love to me without cause – almost regardless of what I do,” and “[My father/mother] praises me for no special reason.” For both of these measures, adolescents answered on a scale ranging from 1 (*Never*) to 3 (*Most often*). Finally, the third scale involved *parents’ negative reactions to adolescents’ disclosure*. Six questions were used, and adolescents answered on a Likert scale ranging from 1 (*Has never happened*) to 5 (*Very often*). The questions for this scale were: “Have you ever told your parents things and later regretted that you did,” “How often have you regretted that you told your parents too much about yourself, your friends, and your free time,” “Have you been punished for something you spontaneously told your parents,” “Have your parents ever used what you told them against you,” “Do your parents bring up things that you told them in confidence again and again,” and “Have your parents ever made fun of things you happened to tell them about yourself and your life?”

Adolescents’ behaviors

Adolescents’ HIA. To measure HIA, we used the Swanson, Nolan and Pelham Questionnaire (SNAP, Swanson et al., 2001), which has shown good reliability (Bussing et al., 2008). This measure consisted of three separate sub-scales: *hyperactivity*, *impulsivity*, and *attention problems*. Parents reported how well each of 17 statements described their adolescents’ behaviors. Examples of *Hyperactivity* items were: “Often leaves seat in situations in which remaining seated is expected” and “Often fidgets with hands or feet or squirms in seat.” Examples of *Impulsivity* items are: “Often has difficulties awaiting turn” and “Often interrupts or intrudes on others (e.g. butts into conversations/games).” *Attention problem* items

included: “Often is distracted by extraneous stimuli” and “Often has difficulties sustaining attention in tasks or play activities.” The response options for all statements ranged from 1 (*Does not apply at all*) to 4 (*Applies exactly*).

Adolescent’s defiance. We used four items to measure parents’ perceptions of their adolescents’ defiant behaviors (Persson et al., 2004). The Likert-scaled items were: “Does your adolescent respond cockily and refuse to obey when you prohibit specific things,” “What does your adolescent usually do when you tell him/her to stop doing something you don’t like,” “How do you think your child reacts if you want him/her to stop seeing certain friends,” and “How does the child usually react when you want him/her to do something at home?” Parents responded on a Likert scale ranging from 1 (*No, practically never / Stops right away*) to 3 / 4 / 5 (*Very often / Does not obey what you say at all*). These items were standardized before computing the variable.

Unresponsiveness to parental correction. Parents rated how their adolescents normally responded to their attempts to influence their behavior (Kerr et al., 2008). Parents responded to five statements: “Often does something after being told several times that it is not allowed,” “Often gets angry when he/she is rebuked,” “You often need to tell him/her several times when he/she has done something wrong to get him/her to stop,” “Although we reprimand him/her for a specific behavior he/she continues to do it,” and “Usually it is sufficient to scold him/her once to prevent him/her from doing something that is not allowed.” The response options ranged from 1 (*Does not apply at all*) to 4 (*Applies exactly*).

Adolescents’ delinquency. Parents answered 10 questions about their adolescents’ engagement in delinquent activities, such as shoplifting, vandalizing public or private property, breaking into a building, being in a physical fight in public, carrying a weapon, and stealing a car (Kerr & Stattin, 2000; Magnusson, Dunér, & Zetterblom, 1975). The response scale ranged from 1 (*Never*) to 5 (*More than 10 times*).

Frequency of adolescents’ intoxication. Adolescents rated their frequency of intoxication: “Have you, during the last year, drunk so much beer, liquor, or wine that you became drunk?” (Kerr & Stattin, 2000; Magnusson et al., 1975). The response options ranged from 1 (*No, it has not happened*) to 5 (*More than 10 times*).

V Results

Study I

In the first study, we presented a theoretical explanation why parents reduce their parenting attempts when they are confronted with problematic behaviors in their adolescents. Studies have shown that parents decrease in control (Huh et al., 2006; Kerr & Stattin, 2003; Kerr et al., 2008; Stice & Barrera, 1995) and support (Hafen & Laursen, 2009; Huh et al., 2006; Kerr & Stattin, 2003; Scaramella et al., 2002; Stice & Barrera, 1995) as a result of problematic behaviors in their adolescents, such as alcohol drinking. Some explanations have been presented for these reactions. However, what is missing in the literature is a study that takes a theoretical approach, and examines and tests why parents react as they do to problematic behaviors. This study was an attempt to develop such a theoretical model.

For this study, we used cognitive dissonance theory (Festinger, 1957) as a theoretical base to develop hypotheses about changes in parenting over two years. In this study, we examined what changes occurred when parents had encountered their adolescents intoxicated. From dissonance theory, we developed two hypotheses. First, when parents, who have strict attitudes toward adolescent drinking, encounter their adolescents intoxicated they should experience dissonance between their attitudes and their knowledge about their adolescents' behaviors. Parents are driven to eliminate this dissonance, and they can do this in different ways. The easiest way might be to change their own attitudes to adolescent drinking. We developed a main-effects model suggesting that parents who had encountered their adolescents intoxicated would increase in tolerance to adolescent drinking over time. Second, according to dissonance theory, when the dissonance is reduced, this should result in less distress. Applying a moderator approach, parents who had encountered their adolescents intoxicated, and who had changed their strict attitudes were expected to experience less distress (measured as worries about their adolescents' drinking) than parents who kept their strict attitudes.

To test the hypotheses in this study, we used General Linear Models (GLM), and the results verified the hypotheses drawn from the theory. First, there was a general trend to become less opposed to adolescent drinking over time. However, this was more pronounced in the group of parents who had encountered their adolescents intoxicated. Thus, among parents who had a strict opposition to adolescent drinking, those who encountered their adolescents intoxicated decreased more in strict opposition over time than parents who did not encounter their adolescents intoxicated. According to dissonance theory, this result could be interpreted as a way for parents to eliminate the dissonance between their strict attitudes to

adolescent drinking and their knowledge that their adolescents have been drinking. Second, parents who kept their strict attitudes should continue to experience dissonance between their attitudes and their adolescents' behavior, and they should feel more distress than parents who became more tolerant. The results in this study were in accordance with this expectation.

Two alternative explanations for the results were tested. First, because adolescents' alcohol drinking and delinquency often co-occur (Kormro, Tobler, Maldonado-Molina, & Perry, 2010), it is possible that parents might react to their adolescents' general problematic behaviors, rather than their drinking per se. Therefore, we included parents' reports about their adolescents' delinquent acts as a control variable in the analysis. The results showed that decreases in parents' strict attitudes were due to them encountering their adolescents intoxicated, and not a consequence of their adolescents' delinquency. The second alternative explanation concerned direction of influence between parents' attitudes and adolescents' drinking. Parents' lenient attitudes might prompt adolescents to drink more, rather than adolescents' drinking influencing their parents' attitudes. To test this idea, we used the MPlus program (Muthén & Muthén, 1998-2006) to test an auto-regressive cross-lagged model including stability paths as well as within-time associations. The results showed that adolescents' drinking predicted changes in parents' attitudes. However, the opposite direction was not true—parents' attitudes did not predict changes in adolescents' drinking frequency. Finally, in all models, we controlled for the adolescents' gender and age, and parents' education level. The results showed that, generally, these control variables did not influence the processes over time.

In conclusion, in this study, parents' cognitive processes were shown to explain why they decreased their attempts to steer their adolescents away from negative behaviors. Consequently, this might be an important aspect to include in future studies.

Study II

Children with ADHD display behaviors that have been shown, in numerous studies, to be difficult for parents to handle (e.g. Barkley et al., 1992; Lange et al., 2005; Lifford et al., 2009; Mash & Johnston, 1983; Podolski & Nigg, 2001; Reader et al., 2009; Schroeder & Kelley, 2009; Whalen et al., 2006). However, there is a lack of theoretically based explanations of the processes through which children's ADHD influences parents' behaviors. In addition, it is unknown what characteristics of children and adolescents with ADHD that make them so difficult for parents to handle. In this study, we used hyperactivity, impulsivity, and attention problems (HIA) to measure ADHD behaviors in a normal population, and we presented a mediational model to explain how and why parents react to HIA.

Parents' reactions were tested stepwise using different theoretical backgrounds. First, we expected that parents of adolescents with high

levels of HIA would perceive their adolescents as unresponsive to correction (Barkley, 1999; Quay, 1988, 1997). The following question was how parents would react to these perceptions. We used two different bodies of literature to predict their reactions: Bugental's attribution model (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984), and empirical studies of parents' reactions to adolescents' problematic behaviors more generally. Based on these two ideas, parents would be expected to react with increases in feelings of powerlessness or with decreases in control and solicitation as a result of their adolescents' unwillingness to respond to their parenting attempts. Finally, according to the parental attributional model, parents' feelings of powerlessness over their children's behavior should make them more ready to behave negatively toward their adolescents. In other words, parents' feelings of powerlessness should result in negative parenting practices. In sum, the theoretical model in this study suggested that HIA is connected to parents' perceptions that their adolescents do not respond to their attempts. These perceptions should result in less control and more feelings of powerlessness, which in turn would make parents increase in negative behaviors or decrease in control and solicitation. This model was tested using the MPlus program (Muthén & Muthén, 1998-2006).

The results were supportive of our theoretical model. At the first step, HIA was linked to parents' perceptions that their adolescents were unresponsive to correction. These perceptions, in turn, predicted increases in parents' feelings of powerlessness and decreases in solicitation. However, testing the indirect effects, the only significant association found was between HIA and feelings of powerlessness. Hence, HIA, through parents' perceptions that their adolescents were unresponsive to correction, predicted increases in feelings of powerlessness. These results supported the ideas underlying Bugental's parental attribution model. At the next step in our theoretical model, we tested whether parents' feelings of powerlessness were transformed into negative behaviors toward their adolescents. According to the parental attributional model, this should be the case. The results showed that parents' feelings of powerlessness predicted increases in coldness and rejection, and decreases in warmth, but did not predict changes in control and solicitation. Thus, parents' feelings of powerlessness resulted in an increase in negative parenting strategies and a decrease in positive parenting behaviors. This study represented a first attempt to examine and explain parents' reactions to their adolescents' HIA.

Two aspects that might influence parents' reactions to their adolescents' HIA are the adolescents' gender and other behaviors that are connected to HIA. First, few studies have examined if HIA in boys and girls influence parents similarly. In this study, we tested whether the model worked in the same for parents of girls and parents of boys. Second, defiant behaviors have shown to be connected to ADHD, and have shown, in some studies to be more important in explaining parents' reactions than

ADHD (Burke, Pardini, & Loeber, 2008; Johnston, Chen, & Ohan, 2006; Kashdan et al., 2004; Podolski & Nigg, 2001; Seipp & Johnston, 2005). The results showed that parents tended to react similarly to HIA in boys as they did to HIA in girls. Further, defiance was a significant predictor of changes in parents' perceptions and behaviors, but it did not reduce the effect HIA had on parenting.

In sum, the results support the presence of a negative coercive circle, where parents' perceptions that their adolescents do not respond to their parenting attempts makes them feel powerless, which in turn increases their negative parenting behaviors.

Study III

In the literature, there is a lack of knowledge about whether parents' experiences of having raised their older children influence their abilities to deal with problematic behaviors in their younger children. In this study, we built hypotheses about how parents' experiences with their older children were associated with the ways they dealt with HIA in their younger children.

Two general models have been presented to understand how parents make use of their earlier experiences with their older children when raising their younger children. The learning-from-experience model suggests that parents learn better strategies and therefore tend to have a better relationship with their younger children than with their older children (Shanahan, McHale, Crouter, et al., 2007; Whiteman et al., 2003; Wray-Lake et al., 2010). In contrast, the spillover model proposes that parents' negative experiences with their older children spill over to the relationship they have with their younger children (Shanahan, McHale, Osgood, et al., 2007; Whiteman & Buchanan, 2002). Both these models lack one important characteristic—they do not acknowledge the variation in parents' experiences with their children. In this study, we argued that it is essential to consider this variation when trying to understand how parents' experiences influence their reactions to problematic behaviors in their adolescents.

In this study, we tested whether the learning-from-experience model or the spillover model provided a better explanation for parents' feelings of powerlessness when they encountered HIA in their younger children. To test this, we used a concurrent, parent-differential-treatment model (Shanahan, McHale, Osgood, et al., 2007), to examine parents' different experiences with their younger and older children at the same point in time. We used parents' reports about their children's HIA and their feelings of powerlessness about raising these children. From the baseline model in the second study, my co-authors and I developed hypotheses.

First, we expected that HIA should be associated with parents' feelings of powerlessness, independent if they had raised a child before. To test this hypothesis, we compared parents who had the experience of raising a child before with parents who had not, on the association between HIA

and parents' feelings of powerlessness. The results supported this hypothesis. HIA was associated with parents' feelings of powerlessness, regardless of whether or not parents had raised a child before. Hence, the experience of having raised a child before was not crucial, in itself, for parents' abilities to deal with HIA in their younger children.

Second, according to the hypothesis drawn from the learning-from-experience model, it was expected that parents who encountered HIA in their younger children and who had older children with HIA should not feel particularly powerless for their younger children. Third, according to the spillover hypothesis, it was expected that parents who encountered HIA in their younger children and had a negative experience with their older children (feelings of powerlessness and older children's HIA) should feel particularly powerless about their younger children. To test the second and third hypotheses, we adapted the model we used for the first hypothesis. Using a moderator approach, we included three interaction terms that combined the younger children's HIA and parents' experiences with their older children into this model. In a first step—testing the hypothesis drawn from the learning-from-experience model—we included a two-way interaction made of both children's HIA. In a second step—testing the hypothesis drawn from the spillover model—we included a two-way interaction combining the younger children's HIA and parents' feelings of powerlessness about their older children, and a three-way interaction consisting of both children's HIA and parents' feelings of powerlessness about their older children. Finally, we tested whether these models worked the same for parents of same-sex- and parents of opposite-sex siblings. We used the MPlus program (Muthén & Muthén, 1998-2006) to test these models.

As was expected, the results showed that parents' *perceptions* of the experiences with their older children were important for their feelings of powerlessness about their younger children. The interaction consisting of both children's HIA was significantly associated with parents' feelings of powerlessness about their younger children. However, the results were contrasting the learning-from-experience hypothesis. When parents encountered HIA in their younger children, they felt powerless even though their older children were high on HIA. Thus, parents did not seem to learn better strategies from having raised a child with HIA because they felt a lack of power when raising their younger children with HIA. In contrast to the results concerning the learning-from-experience hypothesis, the spillover hypothesis was supported. The two-way interaction with HIA in the younger children and parents' feelings of powerlessness about their older children was significantly associated with parents' feelings of powerlessness about their younger children. It was shown that parents who encountered HIA in their younger children and who felt powerless about their older children felt significantly higher levels of powerlessness about their younger children than did parents with a positive experience of having raised their older children. The three-way interaction, however, was not significantly

associated with parents' sense of power about raising their younger children. This means that parents' feelings of powerlessness tended to indicate general feelings and not feelings specifically linked to their older children's HIA. Thus, when parents encountered HIA in their younger children and felt powerless about their older children, their negative experiences spilled over and they felt powerless about their younger children as well. Finally, the processes were similar among parents of same-sex- and opposite-sex siblings.

To conclude, the results of this study showed that when parents felt powerless about raising their older children, they tended to fall into negative thoughts about their sense of power when they encountered problematic behaviors in their younger children. Thus, it is important to consider parents' experiences with their older children when examining parents' reactions to problematic behaviors in their adolescents.

VI Discussion

Traditionally, research on parenting has been conducted from a socialization perspective, focusing on how parents shape their children and adolescents into well-adjusted young adults. Theories and empirical evidence have suggested that “good” parenting creates well-adjusted children. Due to the prominence of socialization theories and barriers to viewing parenting as anything but a process of influence from parent to child (Kuczynski et al., 2003), how children influence their parents has received far less attention. However, when both directions of influence have been examined, child effects have been detected more often, and have often been found to be stronger than parent effects (Huh et al., 2006; Lytton, 1990, 2000). These findings suggest that children *do* influence the behaviors of their parents. In addition, the results of several studies show that parents react to their adolescents’ problematic behaviors in ways that might maintain and increase adjustment problems (e.g. Albrecht et al., 2007; Hipwell et al., 2008; Huh et al., 2006; Huver et al., 2007; Kerr & Stattin, 2003; Kerr et al., 2008; Stice & Barrera, 1995). One way to view these results is to conclude that socialization theorists have failed to recognize that well-adjusted children are easier to parent than children who have adjustment problem. As a result, the theoretical and empirical emphasis has been on what parents do to *create* problems, rather than on how and why parents *respond* to their children and adolescents’ problematic behaviors. Despite some steps toward examining how parents react to problematic behaviors in adolescents, explanations for parents’ behaviors have often been applied post hoc. The aim of this dissertation is to present and test theoretical models in purpose of explaining why parents react as they do to problematic behaviors in their adolescents. These models were built by applying and extending established theoretical ideas about how people and parents respond when problems arise. Using these models, I have examined how adolescents influence their parents, including parents’ cognitions as explanatory mechanisms. Thus, this dissertation aims at broadening the empirical basis for understanding why parents react as they do by taking into account perceptions of their own role, attributions about their adolescents’ behaviors, and attitudes toward adolescents’ behaviors in general.

The findings of the studies were consistent with the theoretically based hypotheses, but they also extend the theories that the hypotheses were developed from. The first study provided insight into why parents react to their adolescents’ drinking by becoming less strict about underage drinking. These results encourage researchers to study other possible disagreements between parents’ beliefs and their adolescents’ behaviors as sources of dissonance. To include the idea of cognitive dissonance reductions, might explain why parents react as they do to other behaviors in their children and adolescents. The findings of the second study showed

that parents not only increased in negative behaviors, but also decreased in positive behaviors, as a result of their adolescents' problematic behaviors. These findings support Bugental's model (Bugental, Mantyla, et al., 1989; Bugental & Shennum, 1984), but also extend the reactions of parents to changes in positive parenting behaviors. This has implications for theorizing about parents' reactions. It points to the need to examine both parents' increases in negative strategies and their decreases in positive strategies as reactions to problematic behaviors. In addition, this study suggests an explanation why parents may feel that they do not have control over caregiving successes and failures. Bugental has argued that children's problematic behaviors are perceived as threatening by parents, and that this explains parents' feelings of a lack of control. However, in this study, we directly tested one possible explanation for this, namely that parents perceive their adolescents as unresponsive to their attempts of correction. This is a contribution to research about parenting because it explains why and how parents' feelings of powerlessness develop and increase. Finally, in this study, we used parents of *adolescents*, rather than parents of *children*. Bugental's model has received much empirical support from studies on parents of children. However, the results of this study (and also the third study) showed that parents' feelings of not being in control over caregiving failures might increase as their children get older. Thus, this study broadens the picture concerning consequences of parents' negative attributions. In the third study, my co-authors and I developed ideas from the second study by including a broader family perspective. This study offered evidence that parents not only base their reactions to problematic behaviors on their experiences with the child who engaged in the problematic behavior, but their reactions were also influenced by their experiences with their older children. The results extend the results of the second study, but also added to Bugental's attributional model, by applying that model to the family system. These findings contribute to parenting research by indicating that parents' reactions do not operate in isolation, but are influenced by processes introduced by other individuals in the family system.

To conclude, what the studies in this dissertation offer, in comparison with other studies in this area, are working models that explain parents' reactions to problematic behaviors. These models are based on two main theories, cognitive dissonance theory and Bugental's attribution model, and the findings of this dissertation have supported and extended these theories. The studies focused not only on *how* parents react, but also on *why* they react as they do. In addition, they show that adolescents do not only influence the behaviors of their parents, but they also influence parents' emotions and cognitions. This is an important step in theory development concerning child effects.

Parents' cognitive processes and their reactions to adolescents' problematic behaviors

What do these studies say about parents who are faced with problematic behaviors? The most apparent pattern from these studies is that parents tend to shift in cognitions as a result of their adolescents' problematic behaviors. Specifically, the results might be interpreted as realignments to expectancy violations offered by the clash between parents' expectations and their adolescents' behaviors (Collins, 1992). In the first study, parents expressed one attitude to adolescents' behaviors more generally, namely that they do not think it is okay for adolescents to drink alcohol. This general attitude also builds in an expectation that their own adolescents should not drink. When they later on are confronted with the information that their own adolescents have been drinking, and have thereby violated their expectations, they change their strict attitudes, which might indicate a shift in their expectations of their adolescents' behavior. Similarly, the second and third studies indicate that adolescents' resistance to parental attempts to correct their behaviors violates parents' expectations of being able to stop misbehaviors (indicated by an increase in feelings of powerlessness). Parents generally believe that, as children grow, they should be able to control their own behaviors, and if children misbehave, parents tend to think that the misbehavior is intentional (e.g. Dix et al., 1986). The results of these two studies suggest that parents might experience a clash between the expectations they have for their adolescents to behave appropriately and their adolescents' actual behaviors. This might mean that they have partly given up the idea that they will be able to change their adolescents' misbehaviors, and thereby reach the original expectation. The results might also mean that parents rationalize about their role in their adolescents' behaviors, which would be an example of self-serving attribution bias. By persuading themselves that they have tried everything to correct their adolescents' behaviors, they can take themselves out of the equation. In addition, the third study also provided evidence for a positive cognitive shift. Parents have been shown to base their expectations of problems with their younger children on their negative experiences with their older children (Whiteman & Buchanan, 2002). It was found, in the third study, that if parents felt powerless about their older children, but did not experience problems with their younger children, they seemed to break the chain of negative thoughts and expressed less feelings of powerlessness in relation to their younger children. This result might indicate a shift in cognitions about their capacity to parent their adolescents when their negative expectations were not fulfilled. Thus, the studies in this dissertation all show tendencies for parents to shift in their cognitions after being exposed to problematic behaviors in their adolescents.

What do these studies *not* say about parents who are faced with problematic behaviors? The results of this dissertation provide further evi-

dence that, when faced with adolescent problem behaviors, parents decrease in behaviors that may have a positive effect on adolescents' adjustment and increase in behaviors that probably will have a negative impact on their adolescents. These results might be surprising from a traditional socialization perspective, but they do not necessarily imply that parents disengage from their adolescents. For example, parents' reductions in strict attitudes and worries, found in the first study, might be seen as reflecting a lack of parental interest or concern. However, in this study, we did not measure other parenting strategies, and, consequently, we do not know whether parents chose to use other strategies to deal with their adolescents' drinking. They might, for example, have attempted to discuss why their adolescents were drinking, pointing out the risks of drinking, and suggesting alternatives for similar situations in the future. Further, parents' who feel powerlessness have probably tried to do everything they can to deal with their adolescents' behavior, but feel that they lack abilities to succeed. These feelings are certainly an indication of frustration, but they probably do not indicate disengagement. Finally, concerning the results in the second study, although increases in negative parenting strategies might not be effective in reducing problematic behaviors in children and adolescents, it does not suggest that parents are disengaged. If anything, they are very much engaged, albeit in problematic ways. Parents may want to change their adolescents' behaviors, but do not know of any effective strategies. In sum, parents' reactions to problematic behaviors might increase or maintain problematic behaviors, but these reactions do not necessarily imply that parents are disengaging from their parenting role.

The transactional process

The discussion about parents' cognitive shifts echoes the ideas about qualitative and quantitative changes that were introduced by Sameroff (1975). In the three studies, my co-authors and I presented models for studying changes in parents' ways of thinking and their consequent reactions. Although Sameroff's transactional model is considered a dialectical model, it seems to be difficult to find methods to capture qualitative changes. As of today, the majority of existing parent-child or parent-adolescent models measure static, rather than dynamic, processes, and focus on simple inputs and outputs (Sameroff & Mackenzie, 2003). Measures of constructs often tap only increases or decreases in the same behaviors and not changes in form. The shifts in parents' cognitions suggested in the studies in this dissertation might, therefore, bring more quantitative changes than qualitative changes to the general issue of how parents react to the emergence of adolescent problem behaviors. However, the studies bring important information to bear upon the question of why parents increase in some behaviors and decrease in other behaviors. This dissertation adds important knowledge about how parents' internal processes influence their ways of behaving toward their adolescents, which has partly been missing in the litera-

ture. For example, Bell (1968; 1971; Bell & Chapman, 1986) provided information about how parents accommodate their strategies in response to their children's behaviors. In his model, he argued that parents' change their upper- and lower-limit control behaviors as reactions to their children's behaviors. This implies an internal process – involving parents' evaluations of their children's behaviors – but it gives little information about how this process works. In the studies in this dissertation, parents' cognitions are treated as central to explaining why they behave as they do in response to different behaviors in their adolescents. Thus, in this dissertation, parents are conceptualized as “thinking parents” (Bell, 1968), who interpret their adolescents' behaviors and their own role as parents.

The studies in this dissertation focused on one part of the transactional model: parents' internal and external processes. Thus, the focus was on how adolescents influence their parents' cognitions and behaviors. However, from a bi-directional perspective, it is not entirely logical to speak of parent and child effects as separate processes. Instead, parenting should be regarded as being part of ongoing reciprocal processes, where “pure” child effects cannot be isolated from “pure” parent effects. It makes more sense to think of parenting as “reciprocal socialization” than parent-to-child socialization (Shanahan & Sobolewski, 2003). Rather than asking the question of who influences whom the most, it is more relevant to develop ideas about how parents and children influence each other. Despite barriers to thinking about and studying parenting as a process of reciprocal socialization, this dissertation has taken some steps toward this goal, by focusing on a limited, but important, part of the picture. The emphasis was on explaining one part of the transactional process, namely how parents deal with behaviors in their children and adolescents. This was a way of better understanding why parents behave as they do when they face some problematic behaviors in their adolescents. However, the results of the studies should be interpreted within the full transactional model, which includes children and adolescents' cognitions about their own behaviors, and also their parents' behaviors. In sum, there is a need to understand how parents and their children's internal and external processes are linked to ongoing interactions within the transactional process. This dissertation gives some understanding of one part of this process.

Limitations and strengths

This dissertation has some limitations that warrant attention. First, in the studies, there is a lack of information about characteristics of the parents. Specifically, we lack data about parents' personalities, psychiatric histories (such as diagnosis information), marital adjustments, and behaviors (such as their own alcohol drinking and delinquent activities). Our theoretical models focused on parents' perceptions of their own behaviors and their adolescents' behaviors, but we have not been able to include other information that might explain the processes. Although parents' personality

traits tend to be excluded when examining the ways in which they parent their children and adolescents (Belsky & Barends, 2002), it is possible that parents with certain psychiatric problems or personalities would react differently than other parents to their adolescents' behaviors. Future research should include more information about parents when trying to understand their reactions to adolescents' problematic behaviors.

A second limitation concerns mono-rater bias. In the majority of the analyses in this dissertation, we used parents' reports only for their feelings, perceptions, and behaviors, and for their adolescents' behaviors. The use of only one reporter might bias the results, because the processes operating between parents and their children are only described from one side, that of the parents. This issue, however, should be viewed in light of the specific research question. In this dissertation, I was interested in processes in parents that might explain their reactions to their adolescents' behavior. Parents and adolescents might experience their interactions with each other in different ways (Steinberg, 2001), and I was particularly interested in parents' perceptions of these interactions. Further, there are probably big differences between what adolescents do outside the home and what parents know about these activities. For this reason, it would have made sense to use adolescents' reports of their own behaviors. However, parents can only react to what they actually know, or believe they know, and using their own reports about their adolescents' behaviors was therefore a logical choice. To conclude, in view of the research questions raised in this dissertation, I argue that it was reasonable to use just one reporter, namely the parent. However, future research should test the proposed models using both parent and child reports.

A third limitation was that the majority of parents who responded to our questionnaires were mothers. This is an important limitation because it is unknown whether the processes shown in the studies apply to fathers in the same way. Mothers and fathers might react differently to problematic behaviors in adolescents, and this dissertation presents little information about fathers' reactions. However, some studies have pointed to similarities in mothers and fathers' experiences of problematic behaviors in their children and adolescents. For example, fathers and mothers have similarly stressful experiences of ADHD in children and adolescents (e.g. Baker, 1994). Further, fathers and mothers' norms about alcohol drinking in adolescents have shown similar patterns with regard to alcohol-specific rule setting (Van Der Vorst et al., 2006). These findings indicate that fathers and mothers may react similarly to problematic behaviors, which might lessen some of the concerns about this limitation. However, future studies should examine whether fathers and mothers' cognitions differentially influence their reactions to problematic behaviors.

A fourth limitation concerns the time intervals that were used in the longitudinal studies. In the first and the second study, longitudinal data from at least two time points were used. Moreover, there were two years

between the measurements. Cognitions might change very rapidly and it could be difficult to capture these changes with our data. Having more time points with shorter intervals might have enhanced our ability to pick up changes in parents' cognitions. Nonetheless, our results were enough to reveal the tie between cognitions and parenting. Thus, our results might not capture minute-to-minute changes as parents face their adolescents' behaviors, but they probably illustrate general changes that take place over a longer period of time.

Finally, using longitudinal data and correlational analyses limits insight into whether parents are really reacting to the behavior that is modeled or to other behaviors displayed by their adolescents. It is possible that the adolescents in these studies showed a range of other problematic behaviors, and that some other behavior was causing the parents to react as they did. Observing and talking to parents and their adolescents might increase the opportunity to draw conclusions about this. However, in the studies in this dissertation, some attempts have been made to overcome this issue. In the first study, we controlled for parents' knowledge about their adolescents' delinquency. In this study, parents' attitude change seemed to be more dependent on them encountering their adolescents intoxicated than their knowledge about their adolescents' delinquent acts. In the second study, adolescents' defiant behaviors were used as a covariate, and control for this did not change the findings or their interpretation. Defiance was shown to be important for changes in parents' feelings and behaviors, but it did not reduce the effects of HIA on them. Even with these attempts, it is possible that parents react to other problematic behaviors, rather than the specific behaviors of interest in the studies. Future studies should use other methods to establish which behaviors of adolescents evoke which parental reaction.

Despite these limitations, the dissertation has several strengths. First, we used samples from a large, community-based dataset. This dataset covered all adolescents between 10 and 18 years old and their parents in a mid-sized town in Sweden. This project had a high participation rate (75% among parents and 87% among adolescents). With these data, it was possible to examine changes in both adolescents and parents from different perspectives. Second, this dissertation used theoretically based ideas about parents' reactions, which is an improvement on the data-driven explanations used in prior studies. To have a theoretical foundation when developing hypotheses provides a more solid base for hypothesis testing. In addition, the studies in this dissertation offer empirical evidence for these theoretical ideas. Consequently, we are better able to understand similar findings in earlier studies. Third, in this dissertation, we used different behaviors in adolescents to capture the broader construct of problematic behavior. In the first study, we used adolescents' drinking as the main behavior, but we also included delinquency as a possible behavior that parents might react to. In the second and third studies, we used HIA and unresponsive-

ness to correction as the targeted behaviors. The studies showed similar patterns concerning parents' reactions, independent of type of behavior. By varying adolescents and parents' behaviors, we could draw conclusions about a wide range of situations where the same processes might take place. This choice strengthens the external validity of the findings. A fourth strength concerns our samples. In all the studies, we used parents of *adolescents*, rather than parents of *children*. Many theories about child effects (e.g. Bell's control system model, and Bugental's attribution model) have been based on parents of children. The results of this dissertation, therefore, provide evidence that the processes that have been found to operate among parents of younger children also operate among parents of older children. In sum, the studies in this dissertation have some limitations, but despite these limitations, the studies also have several strengths that contribute to the literature on parenting and parent-child relationships.

Clinical and theoretical implications

From the traditional socialization literature, parents' behaviors reduce the likelihood of children developing problematic behaviors. The ideas underpinning this literature suggest that when parents are faced with problematic behaviors, they should deal effectively with these in order to reduce their occurrence. Studies of parents' reactions have challenged this suggestion and have shown that parents faced with problematic behaviors actually reduce, rather than increase, their attempts at changing their adolescents' behaviors. The findings in this dissertation add to this area of research. Specifically, they offer theoretically based explanations why parents react in these ways, by focusing on parents' cognitions as possible mechanisms. These findings are interesting in themselves, but they also have theoretical and policy implications.

For the development of theories about parenting and parent-child relationships, the results suggest the inclusion of parents' cognitions as a main factor when studying their reactions. Parents are not just reacting, but they interpret the situation, including their adolescents' behaviors and their abilities to change these behaviors, which influences their own behaviors (and adolescents' responses to them). In future theorizing about parents' reactions, parents' cognitions should be taken into account. This might also apply to parents' reactions to other problematic behaviors in their adolescents, such as internalizing behaviors. This area has received less attention than parents' reactions to adolescents' externalizing behaviors. Studies have shown that parents tend to increase in psychological control as a consequence of their adolescents' internalizing problems, such as anxiety, mood or emotional disturbances, and depressive symptoms (e.g. Albrecht et al., 2007; Rogers, Buchanan, & Winchell, 2003). In this area, parents' cognitions might be of great importance for understanding why they behave as they do. Parents probably interpret adolescents' internalizing behaviors and externalizing behaviors differently. However, the results

of this dissertation highlight the possibilities of using parents' cognitions as mechanisms for understanding their reactions.

Concerning clinical implications, the findings in this dissertation show that when parents face problematic behaviors in their adolescents, they tend to react in ways that probably does not provide the best options for their adolescents. These reactions probably differ from how parents are expected to react and how they think they would react themselves. In fact, concerning parents' potential reactions to their adolescents' drinking, research has shown that parents report that they would use a combination of discussion and disciplinary action if they found out that their adolescents had been drinking alcohol (Beck et al., 1995; Tyler, Tyler, Kaljee, & Hopps, 1994). However, it is one thing to report on a hypothetical question, and another to react in real life. Generally, the results I have reported suggest that it is problematic to take for granted that parents act in the best interest of their children and adolescents when they encounter problematic behaviors. Rather, my findings, and findings from other studies, suggest the opposite. These findings have clear implications for practitioners working with families, in prevention or treatment, and for social policy. If it is known that when parents are confronted with adolescents' problematic behaviors, they often decrease, rather than increase, their attempts to change those behaviors, practitioners might use alternative ways of supporting these parents and their families. In addition, the results show that it might be more important to focus on parents' cognitions than on their actual behaviors. If we know that parents' cognitions influence their behaviors, it is logical to focus on these when trying to prevent parents to use negative strategies. This might be helpful when developing parenting programs aimed at helping parents to handle the problematic behaviors of adolescents in positive ways. Such programs have been effective in reducing negative parenting behaviors among parents of young children. Bugental and her colleagues (Bugental et al., 2002; Bugental & Schwartz, 2009) encouraged parents to find alternative explanations for caregiving failures, rather than blaming themselves or their adolescents. This approach has effectively reduced parents' maltreatment of their children. The results of this dissertation might be of great importance for the continuing development of such programs.

In short, the findings in this dissertation highlight the importance of considering parents' cognitions when developing theoretical models to examine parents' reactions to their adolescents' problematic behaviors. Further, these findings might offer a starting point for developing new treatment strategies in the practical field as well as giving practitioners information about how to help parents dealing with problematic behaviors in their adolescents. For these reasons, the findings in this dissertation constitute an important step for both theory development and clinical practice.

VII References

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Table 1

Cronbach Alphas for the Measures Used in Each of the Studies

	Study I	Study II	Study III
Parents encountering their adolescents intoxicated	Adolescents' HIA .79 (T1), .79 (T2), .77 (T3) for hyperactivity; .75 (T1), .72 (T2), .74 (T3) for impulsivity; .88 (T1), .89 (T2), .90 (T3) for attention problems	Adolescents' HIA .79 and .79 (T1) for hyperactivity; .73 and .71 (T1) for impulsivity; .89 and .89 (T1) for attention problems, for older and younger respectively	Adolescents' HIA .79 and .79 (T1) for hyperactivity; .73 and .71 (T1) for impulsivity; .89 and .89 (T1) for attention problems, for older and younger respectively
Parents' opposition to adolescent alcohol use	Parents' feelings of powerlessness .91 (T1), .93 (T2), .92 (T3)	Parents' feelings of powerlessness .91 (T1), .93 (T2), .92 (T3)	Parents' feelings of powerlessness Older: .92 (T1), Younger: .92 (T1)
Frequency of adolescents' intoxication	Unresponsiveness to parental correction .86 (T1), .86 (T2), .85 (T3)	Unresponsiveness to parental correction .86 (T1), .86 (T2), .85 (T3)	
Adolescents' delinquency .68 (T1), .69 (T2)	Adolescents' defiance .70 (T1)	Adolescents' defiance .70 (T1)	
Parental worries	Parental solicitation .66 (T1), .65 (T2), .67 (T3)	Parental solicitation .66 (T1), .65 (T2), .67 (T3)	
Parental control .70 (T1), .76 (T2)	Parental control .70 (T1), .82 (T2), .81 (T3)	Parental control .70 (T1), .82 (T2), .81 (T3)	
	Negative parenting behaviors .86 (T2), .87 (T3) for coldness-rejection; .88 (T2), .91 (T3) for warmth; .90 (T2), .91 (T3) for negative reactions to disclosure	Negative parenting behaviors .86 (T2), .87 (T3) for coldness-rejection; .88 (T2), .91 (T3) for warmth; .90 (T2), .91 (T3) for negative reactions to disclosure	

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