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Psychological Control:

Revisiting a Classical Theme and Breaking New Ground

Psychological control defines parental behavior that intrudes upon the child's psychological world (e.g., guilt-induction and love withdrawal). Developmental and socialization research has recently witnessed a renewed interest in the concept of parental psychological control and has consistently demonstrated the negative emotional and behavioral developmental outcomes associated with a psychologically controlling rearing style. Despite this increase in research on psychological control, there are still a number of lacunae in our understanding of the dynamics involved in intrusive parenting, such as the antecedents of psychological control, the mediating mechanisms of psychological control, and the relation of psychological control to autonomy-supportive parenting. Drawing from different theoretical perspectives such as object-relational theory and self-determination theory, the general aim of this dissertation was to help elucidate some of these lacunae. This chapter discusses the specific research questions addressed in this dissertation, provides an overview of the structure of the dissertation and of the empirical chapters in it and outlines future directions for research on psychological control.

INTRODUCTION

Psychological control refers to parenting behaviors that intrude upon children's thoughts and feelings, and has been characterized as typical of parents who excessively use manipulative parenting techniques such as guilt-induction, shaming, and love withdrawal (Barber, 1996). As psychological control is thought to inhibit adolescents' development towards autonomy and to interfere with the acquisition of a secure sense of self, it would lead to disturbances in psychosocial functioning (Barber & Harmon, 2002). Although the concept of psychological control was already identified as a crucial parenting dimension in the 1960's (Schaefer, 1965a), socialization research has only begun to systematically examine its role in children's and adolescents' psychosocial functioning since the 1990's (Barber, 1992, 1996; Barber, Olsen, & Shagle, 1994; Steinberg, 1990). Despite the spectacular increase in research on psychological control during the past two decades, a substantial number of questions have remained unresolved, both at the empirical and at the conceptual level. In the concluding chapter of Barber's (2002) influential book on psychological control – entitled *Intrusive Parenting: How Psychological Control Affects Children and Adolescents* – Barber, Bean, and Erickson (2002) pointed out a number of empirical lacunae in research on psychological control. The general aim of this dissertation was to address a number of these and other lacunae, thereby building on well-established theoretical frameworks such as object-relational theory and self-determination theory.

This introductory chapter consists of four sections. A first section provides a brief overview of the history of the construct of psychological control and of the extant empirical literature, along with an overview of the specific research aims of this dissertation. A second section outlines three research questions pertaining to the well-established link between psychological control and internalizing problems and discusses how the research conducted within this dissertation addressed these questions. These research questions are addressed in Part I of the dissertation (i.e., Chapter 2-Chapter 7). A third section deals with another set of research questions pertaining to the relation of psychological

control with other relevant dimensions of parents' rearing style as well as with developmental outcomes in adolescents' broader social and behavioral functioning. These research questions have been addressed in Part II of the dissertation (i.e., Chapter 8-Chapter 11). A fourth section of this chapter provides a number of directions for future research on psychological control.

LITERATURE OVERVIEW AND RESEARCH AIMS

A Brief History of Research on Psychological Control

Since the mid-1990s, the construct of parental psychological control has been an important topic on the research agenda of developmental psychologists in general and socialization researchers in particular. Psychological control was originally identified by Schaefer (1965a) as a key dimension of the quality of parents' rearing style. Schaefer (1959, 1965a) was among the first to systematically study parental behavior as perceived by children. On the basis of factor analyses on a wide range of parenting behaviors, he developed the Children's Reports of Parental Behavior Inventory (CRPBI; Schaefer, 1965b; Schludermann & Schludermann, 1970), which consisted of three factors: Acceptance vs. Rejection, Firm Control vs. Lax Control, and Psychological Autonomy vs. Psychological Control. According to Schaefer (1959, 1965a), psychological control was characteristic of parents who were experienced by their children as intrusive, overprotective, demanding achievement, fostering dependency, and being overly emotionally involved. The covert and intrusive methods used by psychologically controlling parents were thought to hinder the child to develop as a separate person from the parent (Schaefer, 1965a). It is important to note that, despite the supposed detrimental effects of psychological control on children's development, Schaefer (1965a, 1965b) did not actually examine relations between psychological control and children's adjustment.

Following Schaefer's (1965a) early writings on psychological control, researchers lost sight of this construct for about 30 years. This was mainly due to the fact that typological approaches to parenting

behavior prevailed in the socialization literature at that time (e.g., Baumrind, 1971, 1991; Maccoby & Martin, 1983). Within these approaches, it was assumed that effects of one particular parenting dimension cannot be seen as independent from the effects of other parenting dimensions. As a consequence, socialization researchers aggregated parenting behaviors and dimensions into configurations or typologies of parenting behavior. Probably one of the most influential typological models was the model of Maccoby and Martin (1983), in which parenting styles were defined on the basis of two supposedly orthogonal dimensions labeled responsiveness (warmth) and demandingness (control). Responsiveness defined parents' ability to build a warm and affectionate relationship with their children, to empathize with their needs and concerns, and to serve as secure and trustworthy attachment figures in times of distress. Demandingness or control pertained to the provision of regulations and limits for the child's behavior, the communication of maturity demands and the application of consequences when rules for acceptable behavior were trespassed. Crossing these two fundamental dimensions of parenting resulted in a widely acknowledged four-field classification of parenting styles (see also Darling & Steinberg, 1993; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Elmen, & Mounts, 1989; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992): authoritative (high responsiveness – high demandingness), permissive (high responsiveness – low demandingness), authoritarian (low responsiveness – high demandingness), and neglecting/uninvolved (low responsiveness – low demandingness). As this typological scheme did not include psychological control, the construct largely disappeared from the socialization literature.

The construct of psychological control was brought back to the attention of socialization scholars by Steinberg (1990) and Barber (1996; Barber et al., 1994) who proposed a distinction between behavioral control and psychological control. The construct of behavioral control was largely similar to the dimension of demandingness defined by Maccoby and Martin (1983) and pertained to parental attempts to regulate and structure the child's behavior (e.g., manners, study activities, and involvement

with peers), for instance, through the communication of rules for appropriate behavior and monitoring of the child's behavior. Psychological control was viewed as distinct from behavioral control in that it involved attempts to control the child's psychological world (e.g., feelings, aspirations, and identity choices). Specifically, Barber (1996, p. 3299) defined psychological control as "socialization pressure that is non-responsive to the child's emotional and psychological needs [but instead] stifles independent expression and autonomy". Psychologically controlling parents would intrude on the psychological and emotional development of the child through internally controlling and emotionally manipulative means such as guilt induction, love withdrawal and invalidating feelings (Barber & Harmon, 2002).

According to Barber (1992, 1996, 1997; Barber & Harmon, 2002), the distinction between behavioral control and psychological control is of crucial importance because it would allow for a more fine-grained analysis of the effects of parenting on children's and adolescents' development. Specifically, Barber (1992) initially hypothesized that behavioral control and psychological control would have specialized and unique consequences for adolescents' psychosocial functioning, with behavioral control being specifically relevant to externalizing conduct problems (such as delinquency and drug use) and with psychological control being more strongly related to internalizing problems (such as depression and anxiety). As behavioral control ideally provides adolescents with a clear set of guidelines for appropriate behavior, this parenting dimension would have a particularly important adaptive function in protecting adolescents against externalized or antisocial behavior. Psychological control, by contrast, was thought to be particularly linked to a vulnerability to internalized problems because this parenting dimension would primarily interfere with the establishment of a secure, stable, and positive sense of self (Barber & Harmon, 2002). In short, not only would psychological control and behavioral control affect different domains of adolescents' development (internalizing vs. externalizing problems, respectively), they would also have opposite effects, as behavioral control would serve an adaptive socialization function and psychological control would be conducive to maladaptive development.

Barber's (1996; Barber et al., 1994) initial empirical work on psychological control mainly aimed to

examine this hypothesized specialized role of behavioral control and psychological control in adolescent adjustment. Completely in line with expectations, Barber et al. (1994) found that whereas behavioral control was specifically negatively related to externalizing problems, psychological control was specifically positively related to internalizing problems. Barber (1996), however, found that psychological control was positively related to externalizing problems as well.

Subsequent studies have shown a pattern of findings that was highly consistent with this initial set of findings. First, reliable evidence has been obtained for a positive association between psychological control and internalizing problems, even when controlling for the effects of other parenting dimensions such as responsiveness and behavioral control (Barber, Stolz, Olsen, & Maughan, 2005; Garber, Robinson, & Valentiner, 1997). Second, a number of studies additionally found a positive association between psychological control and externalizing problems (Barber & Olson, 1997; Barber, Stolz, et al., 2005; Conger, Conger, & Scaramella, 1997; Galambos, Barker, & Almeida, 2003; Herman, Dornbusch, Herron, & Herting, 1997; Rogers, Buchanan, & Winchell, 2003; Stone, Buehler, & Barber, 2002), although other studies could not confirm this (Caron, Weiss, & Harris, 2003; Forehand & Nousiainen, 1993; Gray & Steinberg, 1999). To summarize, whereas research on the effects of psychological control has shown a consistent positive relation with internalizing problems, relations with externalizing problems are less consistently evident but such relations, if any, are also positive.

The positive associations between psychological control and externalizing problems obtained in a number of studies already suggest that the detrimental effects of psychological control on adolescents' functioning are not limited to adolescents' intrapersonal functioning. Further in line with this notion, studies have found that the negative effects of psychological control extend to diverse areas of adolescents' functioning such as scholastic and academic competence and social functioning. It has been shown that psychological control is negatively related to school grades and performance (Aunola & Nurmi, 2004; Bean, Bush, McKenry, & Wilson, 2003; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2004) and to feelings of academic competence (Soucy & Larose, 2000). Furthermore,

psychological control has been found to be negatively related to peer support (Karavasillis, Doyle, & Markiewicz, 2003), and positively to social anxiety (Loukas, Paulos, & Robinson, 2005), and aggressive behaviors in peer relations (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Nelson & Crick, 2002), behaviors which, in turn, negatively affect the quality of their friendships and peer relations. Together, these findings suggest that psychological control does not only affect adolescents' intrapersonal functioning, but also adolescents' functioning in the broader interpersonal contexts of school and social relationships.

Recent research is not only expanding the study of psychological control to a broader range of developmental outcomes, but also to populations that show a larger diversity with respect to age and cultural background. First, whereas most research on psychological control has been conducted with adolescents, recent studies have attempted to apply the construct of psychological control to the study of young children's adjustment (e.g., Caron, Weiss, Harris, & Catron, 2006; Hart et al., 1998; Holmbeck et al., 2002; Morris et al., 2002; Verschueren, Dossche, Marcoen, Bakermans-Kranenburg, & Mahieu, in press). Morris et al. (2002), for instance, argued that psychological control, due to its intrusive nature and its reliance on contingently approving tactics should be harmful for children of all ages. In order to tap children's perceptions of their parents' use of psychological control, they devised an instrument on the basis of a child puppet interview procedure. This instrument proved to be a reliable and valid measure of psychological control for children as young as 6 years of age. More importantly, psychological control was found to predict both internalizing and externalizing problems, albeit only in children who scored high on irritable distress. Given the relative paucity of research on psychological control in populations of young children, however, further research on the assessment and the effects of psychological control at a young age is clearly needed.

Second, questions have been raised regarding the cross-cultural relevance of psychological control. It has been argued, for instance, that psychologically controlling strategies such as love withdrawal (Ho, 1986; Knafo, Assor, Schwartz, & David, in press) and shaming (Olsen et al., 2002; Wu

et al., 2002) are more frequently used in Eastern and Russian societies compared to Western society. In China, for instance, such internally controlling tactics would be an integral part of *Guan Jiao*, a type of control that would be demonstrative of parental involvement and concern (Nelson et al., 2005). On the basis of such accounts, one may argue not only that psychological control has a different meaning in different cultures (e.g., expressing involvement rather than intrusiveness), but also that psychological control may be less maladaptive or even favorable to children's development in some cultures. Hence, one may wonder (a) whether psychological control construct has the same meaning and can be equivalently measured in non-Western cultures and (b) whether structural relations between psychological control and adolescent psychosocial functioning are similar across cultures.

Regarding the first issue, Olsen et al. (2002) found strong evidence for the equivalence of a measure of psychological control in three samples of parents from Russia, China, and the United States. Similarly, Krishnakumar, Buehler, and Barber (2004) recently showed that the items from a well-known psychological control scale (drawn from the CRPBI; Schaefer, 1965b) were adequate indicators of the construct in both European-American and African-American families. Some items of the paternal psychological control scale, however, showed a somewhat different pattern of factor loadings in both groups, suggesting that the meaning of this construct may differ somewhat in both groups. Further research is needed to identify in greater detail the specific meaning of these discrepancies.

Regarding the second issue, recent research is increasingly showing that the structural relations between psychological control and maladjustment hold across cultural and ethnic groups. Vansteenkiste, Zhou, Lens, & Soenens (2005), for instance, found that a composite measure of psychologically controlling versus autonomy-supportive parenting negatively predicted a composite measure of adjustment and was negatively associated with the use of adaptive learning strategies in Chinese students. Further, in the Cross-National Adolescence Project (C-NAP) – probably the most comprehensive and ambitious cross-national study of psychological control to date – Barber, Stolz, et al. (2005) provided convincing evidence that psychological control has adverse consequences for

adolescents' functioning across 10 different nations representing each continent on the globe. In each of the nations studied, psychological control was positively related to both internalizing and externalizing problem behaviors (Barber, Stolz, et al., 2005). Hence, despite the slight differences in meaning that this construct may have in different cultures, it is becoming increasingly clear that the negative effects of psychological control generalize across cultures. Such findings contrast with relativistic cross-cultural perspectives which assume that the functional significance of psychological control towards adolescents' development differs from culture to culture. Instead, according to Barber, Stolz, et al. (2005), these findings suggest that the experience of psychological control "speaks quite basically to human development" (p. 114). More specifically, one possibility that will be outlined in the following sections is that psychological control leads to the frustration of a universal and basic human need for autonomy which, in turn, renders people vulnerable to adjustment difficulties.

Research Aims of this Dissertation

From the overview presented in the preceding paragraphs, it becomes clear that research has shown that parental psychological control is related to negative outcomes in adolescents' intra-personal and emotional functioning as well as in their broader social, academic, and behavioral functioning. This dissertation aims to add to our understanding of the role of psychological control in both areas of adolescents' psychosocial functioning.

The first part of this dissertation aims to provide an in-depth examination of the dynamics involved in psychologically controlling parenting as it relates to internalizing problems, the outcome which is theoretically and empirically most closely linked to psychological control. Specifically, this part of the dissertation centers around three unresolved issues which have been identified by Barber et al. (2002) as areas in need of specialization: (a) what are the underlying processes and dynamics mediating the effects of psychological control on internalizing problems, (b) what are the antecedents or predictors of

parental use of psychological control, and (c) what is the direction of effects in associations between psychological control and internalizing problems?

The second part of this dissertation aims to situate the construct of psychological control in the broader context of other relevant parenting style dimensions (e.g., autonomy-support and behavioral control) and examines a number of processes relating psychological control to adolescents' general behavioral (e.g., externalizing problems) and social (e.g., friendship quality) functioning. Specifically, this part of the dissertation addresses the following research questions: (a) how does psychological control relate to the construct of autonomy-supportive parenting, (b) which processes account for the relation between psychological control and externalizing problems and (c) what are the processes involved in relations between psychological control and the quality of adolescents' social functioning?

The specific research questions of Part I and Part II are discussed in greater detail in the following two sections of this chapter, respectively.

PART I

PSYCHOLOGICAL CONTROL: AN EXPLORATION IN DEPTH

In line with the notion that psychological control intrudes upon adolescents' psychological world and thus primarily targets adolescents' self-processes, psychological control was found to be strongly and consistently related to internalizing problems in adolescents (Barber & Harmon, 2002). The precise psychological dynamics explaining this association, however, have not been systematically explored. Most notably, it remains unclear (a) how psychologically controlling parenting carries over into adolescent distress (i.e., mediation), (b) what makes parents resort to the use of psychological control (i.e., antecedents), and (c) whether the association between psychological control and internalizing problems represents a parent effect, a child effect, or a transactional phenomenon (Barber et al., 2002). These three issues are focused upon in Part I of this dissertation (Chapters 2-7) and they are introduced in greater detail in the following paragraphs.

Mediators of the Link between Psychological Control and Internalizing Problems

To explore relevant mediators of the association between psychological control and internalizing problems, it was deemed fruitful to situate the construct of psychological control in a broader theoretical context because the socialization literature, as such, does not provide an in-depth conceptual perspective on psychological control (Steinberg, 2005). This relative lack of theoretical background may have its roots in the historical practice of research on this construct. As outlined in the previous section, psychological control was "discovered" by early socialization researchers who developed empirically-driven typologies of parenting behavior through large-scale factor analyses (e.g., Schaefer, 1965a). Hence, the construct of psychological control was not introduced from a well-developed theoretical framework, which hampers the formulation of hypotheses on the processes involved in the consequences of psychological control. Enlarging the theoretical basis of psychological control may thus

be of crucial importance to provide testable hypotheses about the dynamics involved in psychologically controlling parenting. Specifically, we will draw from two theoretical perspectives, that is, object-relational theory and self-determination theory.

Object-relational theory

The question of how relationships with parents – and intrusive experiences in the parent-child relationship in particular – influence children's representations of themselves and ultimately shape children's adjustment and well-being is an important issue in object relations theories (e.g., Blatt & Homann, 1992; Greenberg & Mitchell, 1983; Stern, 1985). Central to these theories is the notion that experiences in relationships with parents are transformed into internal representations of parents and of self which, in turn, guide individuals' subsequent interpersonal and intrapersonal functioning (Greenberg & Mitchell, 1983; Waniel, Priel, & Besser, 2006). Object relations theory posits that patterns of parental behavior (whether they are normal or disturbed) are interiorized in children's and adolescents' mental representations of caring relationships, which function as templates for the representations that children build of themselves and others (Blatt, 1995a; Blatt & Auerbach, 2001; Blatt & Homann, 1992). For instance, representations of caring and responsive parents would facilitate the internalization of positive self-representations that lead to adaptive developmental outcomes (e.g., high social competence and low vulnerability to depression). Notably, the construct of internal representations is closely related to the construct of internal working models as proposed within attachment theory (Bowlby, 1980, 1988; Main, Kaplan, & Cassidy, 1985) as well as to the construct of relational schemas as proposed in social-cognitive theories (e.g., Baldwin, 1992).

How do these general theoretical principles apply to the specific dynamics involved in psychologically controlling parenting? According to Winnicott (1965), parents who strongly focus on their own personal needs and who subsequently conditionally care about their children (i.e., core characteristics of psychological control) may set the stage for the development of a false self in children. Specifically, Winnicott (1965) introduced the terms *good-enough and not-good-enough parenting,* with

the latter type of parenting being characterized by "the mother's inability to sense her infant's needs" (p. 145). Such parents "repeatedly fail to meet the infant gesture; instead she substitutes her own gesture which is to be given sense by the compliance of the child" (p. 145). Winnicott (1965) suggested that not-good-enough parenting contributes to the development a *false self*, that is, a self featured by a lack of spontaneity and personal ideas. When one's false self dominates one's living, one's interests and values do not reflect one's inner or core self, but merely reflect the wishes of loved, but conditionally accepting others. Hence, an important consequence of love withdrawal or conditional regard is that individuals' sense of self-worth becomes contingent upon fulfilling the requirements of loved others (see also Deci & Ryan, 1995; Reeve, 2004). Individuals with such a false self buttress themselves with feelings of shame, self-criticism, and guilt for not living up to certain standards.

Central to the formulations of Winnicott (1965) is the idea that conditionally approving or love withdrawing parenting may give rise to insecure representations of self and others, such that children lose contact with their own inherent preferences, capacities, and potentialities. Instead, their behavior becomes primarily oriented towards gaining the approval and love of others and towards meeting standards for behavior that have been adopted from others. Such alienated and unstable self-representations would, in turn, create a vulnerability to maladjustment or even psychopathology.

This general idea was developed in more detail by Blatt and colleagues (1974, 1995b, 2004; Blatt & Homann, 1992; Zuroff, Mongrain, & Santor, 2004; Zuroff, Blatt, Sanislow, Bondi, & Pilkonis, 1999) and other scholars of object-relational thought (e.g., Arieti & Bemporad, 1978; Bowlby, 1980) who have theorized that intrusive and conditionally approving parenting is related to children's vulnerability to depression through two possible pathways, that is, by creating either a self-critical / perfectionist or a dependent orientation in children. The first pathway is primarily concerned with the internalization of excessive demands for achievement and the second pathway is concerned more with loss of interpersonal relations and with separation anxiety. The work in this dissertation primarily focused on self-criticism / perfectionism as a possible mediator of the association between psychological control

and internalizing problems.

Self-critical or perfectionist individuals strive for excessive achievement and are highly competitive (Blatt, 1974). If encountered with failure, they engage in harsh self-scrutiny and negative self-evaluations. They also have a chronic fear of disapproval and criticism. In other words (and akin to the idea of a false self proposed by Winnicott, 1965), the self-worth of self-critical individuals is contingent upon the degree to which they meet harsh intrapersonal or perceived interpersonal standards for achievement. Self-critical self-representations would represent a vulnerability to depression and to psychopathology in general (Blatt, 1974, 2004) because they give rise to a process of relentless self-derogation, undermine people's capacity to experience lasting satisfaction after obtaining a particular goal, and forestall the development of secure and comforting interpersonal relationships. Specifically, self-criticism is thought to give rise to an introjective type of depression, characterized by feelings of worthlessness, inferiority, failure, and guilt (Blatt, 1974; Nietzel & Harris, 1990).

The concept of self-criticism is closely related to the concept of perfectionism (Hewitt & Flett, 1991; Frost, Marten, Lahart, & Rosenblate, 1990), which is intensively examined in recent research on depression. Notably, research on perfectionism makes a distinction between maladaptive and relatively more adaptive components of perfectionism (Blatt, 1995b). Adaptive perfectionism involves the setting and active striving for high standards and goals. As such, setting high standards need not form a risk factor for maladjustment and may even constitute a positive motivational force to engage in goal-directed behaviors. Setting high standards only turns into maladaptive perfectionism when individuals rigidly hold on to their standards (even in light of failure) and chronically engage in harsh self-scrutiny and negative self-evaluation when standards for achievement are not met. Akin to Blatt's concept of self-criticism, maladaptive perfectionism thus involves an inflexible adherence to unrealistic standards coupled with chronic fears of failing to achieve these standards and doubts about whether one's behavior meets one's standards. Within Blatt's (1995) view, maladaptive perfectionism and self-criticism thus represent virtually interchangeable constructs.

Many factor-analytical studies have now validated the distinction between maladaptive and relatively more adaptive types of perfectionism (e.g., Dunkley, Blankstein, Masheb, & Grilo, 2006; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993) and other studies have externally validated this distinction by showing that whereas maladaptive perfectionism invariantly predicts negative adjustment outcomes, relatively more adaptive types of perfectionism have weak, negligible, or even negative associations with maladaptive functioning (e.g., Bieling, Israeli, & Antony, 2004). The difference between maladaptive and relatively more adaptive types of perfectionism was adopted in this dissertation. It was deemed most likely that maladaptive (but not adaptive) perfectionism would serve as a mediator of associations between psychological control and internalizing problems. This hypothesis is in line with Blatt's (1974, 2004) theorizing on the developmental origins of perfectionism / self-criticism.

According to Blatt (1995; Blatt & Homann, 1992), self-critical or (maladaptive) perfectionist self-representations develop in individuals who experienced their parents as highly demanding and as expressing their love conditional on the child's performance (i.e., love withdrawal): "The [self-critical] child experiences parental love as conditional and contingent upon meeting very strict parental standards, and becomes depressed in response to perceived failure or criticism" (Blatt & Homann, 1992, p. 80). Importantly, parents of self-critical children may express disapproval of their children's behavior in quite subtle ways, for instance, by communicating disappointment or by inducing guilt in case of failure and by implying that they will approve the child's behavior in case of success only (see also Burns, 1980; Hamacheck, 1978). It is clear from these accounts that psychological control is conceived of as an important antecedent of a self-critical, maladaptive perfectionist orientation. Highly perfectionist and self-critical individuals would learn to judge themselves in the same conditionally approving fashion as they perceive their parents to judge them. They would rigidly adhere to their standards, even in the light of adverse consequences, and buttress themselves with feelings of guilt and shame when their absolutist standards are not met. Representations of psychological control would thus mainly contribute to the development of self-critical and maladaptive perfectionist self-representations.

Self-criticism / maladaptive perfectionism would in turn relate to higher levels of children's and adolescents' vulnerability to depression.

To summarize, psychodynamic and object-relational theories generally assume that intrusive and conditionally approving parenting relates to alienated, unstable, and insecure representations of self and others which, in turn, render individuals vulnerable to psychopathology and depression in particular. More specifically, diverse theories of object-relational thought converge on the idea that self-criticism / maladaptive perfectionism represents a central disposition through which controlling parenting creates a vulnerability to depression and internalizing problems in general (Blatt, 1974; Blatt & Shichman, 1983). As will be outlined in the following section, the description of these dynamics as provided by object-relational theory runs parallel to the view of self-determination theory on the dynamics involved in psychological control.

Self-determination theory

Central to self-determination theory (SDT; Deci & Ryan, 1985, 2000) is the concept of autonomy, which is viewed as a universally significant human capacity that promotes healthy development. Specifically, SDT differentiates between autonomous and controlled reasons for acting, and suggests that autonomy-supportive environments will promote an autonomous regulation of behavior, whereas controlling environments will hinder such an autonomous regulation and will induce a controlled regulation. Within SDT, psychological control is viewed as one specific type of controlling environment that would relate to negative behavioral and emotional outcomes because it causes people to behave on the basis of internally controlling rather than autonomous motives.

Autonomous behaviors are behaviors that a person willingly endorses and that reflect a person's abiding needs and values (Deci & Ryan, 2000; Ryan, 1993). Two different types of autonomous motivation are distinguished, that is, intrinsic motivation and well-internalized extrinsic motivation (also referred to as identification). In the case of intrinsic motivation, people naturally follow their interests and engage in the activity out of pleasure and spontaneous curiosity. In the case of well-internalized

extrinsic motivation, individuals perform the behavior because it serves a personally important value. Because people identify with the personal importance of the activity in such cases, this type of regulation has been called identified regulation. Regardless of whether people engage in a behavior because they like it or because they perceive it as personally meaningful, they will perform the behavior in a willing, self-chosen, or autonomous fashion. Therefore, these two types of regulation (i.e., intrinsic motivation and identified motivation) are considered instances of an autonomous motivation.

In contrast to autonomous motivation, controlled motivation refers to the enactment of behavior out of pressure and obligation (Deci & Ryan, 2000). In the case of controlled motivation, people's behavior is guided by forces that are experienced as alien to the self. SDT maintains that the pressure and control can originate from two different sources, that is, outside the person and inside the person. In the case of external pressure, individuals' behavior is controlled by external contingencies such as rewards, deadlines, or pressuring expectations from others. This type of regulation is labeled external regulation. However, pressure can also reside within the person, as when individuals buttress their behavior with feelings of guilt, shame, self-criticism, or self-aggrandizement. This type of regulation is labeled introjection, because individuals are applying pressuring forces intra-individually, which had been formerly applied by external agents. Although internal to the person, the behavioral regulation has, in contrast to an identified regulation, only been partially internalized. The behavior has not been fully accepted as one's own and is still performed with a sense of resistance and coercion. As external and introjected regulation both involve a sense of pressure and coercion, they represent instances of a controlled motivation (Deci & Ryan, 2000; Ryan, 1993; Ryan & Connell, 1989; Ryan, Deci, Grolnick, & LaGuardia, in press).

According to SDT, the extent to which people engage in behaviors for autonomous or controlled reasons has vitally important ramifications for how effective these behaviors will be in attaining desired goals as well as for people's well-being. In one of the first examinations of this hypothesis, Ryan and Connell (1989) showed that autonomous motives (i.e., intrinsic and identified) to study or to engage in

pro-social behavior yielded uniformly positive consequences (such as the use of more adaptive coping strategies and less anxiety in the educational domain, and higher levels of empathy and moral reasoning in the pro-social domain), whereas controlled types of motivation (i.e., external and introjected regulation) were associated with a more maladaptive pattern of outcomes. Following this initial examination, studies have documented the positive behavioral outcomes (e.g., more persistence and achievement) and well-being outcomes (e.g., more vitality, less burn-out and depressive feelings) of an autonomous motivation relative to a controlled motivation in life domains as diverse as relationships (e.g., Blais, Sabourin, & Vallerand, 1990), religion (e.g., Ryan, Rigby, & King, 1993), work (e.g., Deci, Connell, & Ryan, 1989), sports (Frederick & Ryan, 1993), and health care (e.g., Williams, Rodin, Ryan, Grolnick, & Deci, 1998).

Importantly, SDT assumes that socialization agents in general and parents in particular provide an important context for the development of an autonomous or controlled behavioral regulation. Specifically, whereas autonomy supportive parenting would foster a more self-determined functioning, controlling parenting would detract from autonomous functioning and instead give rise to a controlled regulation of one's behavior. Autonomy-supportive parenting is characteristic of parents who take their children's frame of reference, who provide choices and opportunities for self-initiation whenever possible, and who provide a meaningful rationale for performing a particular behavior when choice is limited (Deci, Eghrari, Patrick, & Leone, 1994). Within SDT, autonomy-supportive parenting is contrasted with controlling parenting, that is, parenting that pressures children to think, act, or feel in ways that are imposed by parents. In line with this reasoning, numerous studies have demonstrated that autonomy-supportive parenting relates to higher levels of intrinsic motivation and autonomous functioning in children whereas controlling parenting predicts diminished autonomous motivation and a more controlled type of functioning (see Grolnick, 2003 for an overview).

Germane to the topic of this dissertation, it has been argued within SDT that psychologically controlling parents would specifically activate an introjected regulation in children and adolescents (Deci

& Ryan, 1995; Ryan et al., in press; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005). Through the use of guilt-induction, shaming-procedures or love withdrawal, the internal pressures that reside within individuals and that have the potential to regulate one's behavior are primed. As a consequence, adolescents who experience their parents as psychologically controlling would only partially internalize the parents' rules. Although the rule would reside within the person, it would be experienced as a source of conflict and inner tension rather than as an integral part of the self. Such an internally controlling regulation, in turn, is hypothesized to create vulnerability to maladaptive patterns of development and even to psychopathology (Ryan et al., in press). In sum, SDT proposes controlled motivation in general and an introjected regulation in particular as an intervening process through which parental psychological control may foster impaired psychosocial functioning in children and adolescents.

At this point, one may wonder how this proposed psychological dynamic relates to the mediating processes that are proposed within the object-relational theories described in the previous section (i.e., self-criticism / perfectionism). There is in fact a strong resemblance between the mechanisms proposed within SDT and object-relational theory. Self-critical / perfectionist individuals rigidly focus on the attainment of highly demanding standards and experience relentless doubts and concerns regarding the attainment of these standards. As they behave on the basis of harsh and self-imposed standards for achievement, it is clear that self-critical individuals are essentially driven by a contingent self-esteem and by punitive internal pressures that are referred to as introjection within SDT. Moreover, apart from the pursuit of these internally pressuring standards, maladaptive perfectionists' functioning is simultaneously coupled with concerns that they will be unable to achieve standards, which gives rise to a sense of amotivation or helplessness. Thus, from the SDT-perspective, maladaptive perfectionism represents a blend of controlled regulation and amotivation (i.e., a total lack of motivation), which are both likely to result from being raised in a psychologically/internally controlling environment.

Empirical evidence

In line with the idea that controlling and intrusive parenting is etiologically linked with the

development of a self-critical and perfectionist orientation, several studies (e.g., Koestner, Zuroff, & Powers, 1991; Mongrain, 1998; Rosenfarb, Becker, Khan, & Mintz, 1994; Whiffen & Sasseville, 1991) have documented relations between controlling, conditionally approving and achievement-oriented parenting and self-criticism, as measured with Blatt, D'Afflitti, and Quinlan's (1976) Depressive Experiences Questionnaire (DEQ). In addition, several studies have examined relations between parenting style and maladaptive perfectionism. It has been found, for instance, that authoritarian parenting is positively related to socially prescribed perfectionism, that is, the tendency to feel that others set unrealistically high standards for onself (Flett, Hewitt, & Singer, 1995). Similarly, Kawamura, Frost, and Harmatz (2002) found positive associations between harsh, authoritarian parenting and maladaptive perfectionism, which involves engagement in punitive and harsh self-evaluations.

In addition to demonstrating positive associations between controlling parenting and self-criticism / perfectionism, a few studies have examined whether the latter self-processes serve to mediate associations between generally controlling parenting and adolescent internalizing problems. Kenney-Benson and Pomerantz (2005), for instance, recently demonstrated in a sample of middle school children that ratings of maternal control as assessed by laboratory observations were positively related to socially prescribed perfectionism in their children, indicating that children of controlling mothers felt pressured by perfectionist goals and high expectations imposed on them by others. Such feelings of socially prescribed perfectionism, in turn, positively related to depression in children and mediated any direct association between maternal control and children's depression. In a sample of late adolescent college students, Enns, Cox, and Clara (2002) found that harsh and perfectionist parenting led to maladaptive perfectionism which, in turn, led to depression proneness. None of these studies, however, included the construct of psychological control. As psychological control may be expressed in a rather subtle and manipulative fashion, it is qualitatively different from more overt and blunt types of control such as authoritarian and harsh parenting.

Given the findings and the theoretical arguments discussed in the preceding paragraphs, perfectionism was considered a likely candidate to mediate relationships between representations of parental psychological control and adolescents' internalizing problems. Chapter 2 and Chapter 3 of this dissertation present the findings of two cross-sectional studies which examined this hypothesis. Chapter 2 examines relations between psychological control, perfectionism, and self-esteem and depression in a sample of middle and a sample of late adolescents. Chapter 3 reports on a case-control study examining relations between psychological control, perfectionism and eating disordered psychopathology, both in a sample of healthy, non-eating-disordered female late adolescents and a sample of female late adolescents with an eating disorder. Chapter 4 adds to the findings of Chapter 2 and 3 by examining the relations between psychological control, maladaptive perfectionism, and depression from a longitudinal perspective. In this 3-wave prospective study, it was examined whether psychological control at Age 15 would predict maladaptive perfectionism one year later and whether maladaptive perfectionism would, in turn predict depression again one year later, controlling for the degree of stability in both maladaptive perfectionism and depression. Across the three studies, it was found that maladaptive (but not adaptive) perfectionism functions as a significant intervening variable in associations between psychological control and internalizing problems. Together, these studies add to the literature on parental control and self-criticism / perfectionism in three substantial ways: (a) by introducing the specific concept of parental psychological control to this literature, (b) by examining the hypothesized intervening role of perfectionism in relation to diverse expressions of internalizing problems, including depression, low self-esteem, and eating disorder symptoms, and (c) by using a longitudinal design which allows one to more accurately examine the temporal sequence implied in the hypothesized mediation model.

Apart from this literature on controlling parenting and self-criticism / perfectionism, studies have addressed the hypothesis derived from SDT that controlling parenting forestalls the development of an autonomous regulation of behavior and instead gives rise to controlled types of motivation (e.g.,

Grolnick, Ryan, & Deci, 1991; Grolnick, Kurowski, Dunlap, & Hevey, 2000). Comparatively fewer studies, however, have specifically examined associations between *internally or psychologically* controlling (versus autonomy supportive) parenting and adolescents' motivation. Soenens and Vansteenkiste (2005) examined such associations in three life domains, that is, schooling, job seeking and friendships, and also assessed whether adolescents' level of self-determination (i.e. their level of autonomous rather than controlled functioning) in these life-domains would play an intervening role between parenting and the quality of adolescents' functioning in these domains. After controlling for teacher autonomy support, maternal (but not paternal) autonomy-supportive versus psychologically controlling parenting was found to relate to a more self-determined regulation in the domains of schooling and friendships. A more self-determined academic regulation, in turn, was positively related to GPA and to scholastic competence, whereas a more self-determined friendship regulation was positively related to social competence.

A second study replicated the pattern of results found in the academic domain in Study 1 (friendships was no longer included) and further showed that, after controlling for teacher autonomy support, paternal (but not maternal) autonomy-supportive versus psychologically controlling parenting positively predicted a self-determined job search motivation among school leavers. A more self-determined job search motivation was, in turn, positively related to the intention to search for a job and to exploration of and commitment to one's vocational identity. Another study by Vansteenkiste, Zhou, Lens, and Soenens (2005) equally demonstrated that self-determined motives for studying mediate associations between autonomy-supportive versus psychologically controlling parenting and both learning and well-being outcomes.

In addition to these studies which looked at the broad concept of self-determination as a mediator in relations between parenting and adolescent outcomes, Assor, Roth, and Deci (2004) specifically examined the intervening role of an *introjected* regulation. Assor et al. (2004) tapped adolescents' perceptions of parents' use of conditional regard (i.e., a central component of psychological control) in

four domains (i.e., emotion-regulation, pro-social behavior, academics, and sports) and examined whether conditional regard in these domains would be associated with adolescents' introjected regulation of behaviors in these domains and with adolescents' subsequent enactment of these behaviors. The results indicated that conditionally approving parenting was consistently related to feelings of internal compulsion to engage in behaviors (i.e., introjection). Introjection, in turn, was positively related to adolescents' engagement in the behaviors requested by parents. Intriguingly, these results suggest that, although conditionally approving parents may lead their children to engage in the behaviors desired by the parents, the children's behavioral enactment is of a controlled kind. Children internally pressure themselves to engage in these behaviors, which is unlikely to result in long-term behavioral enactment, and which also comes at the cost of negative personal affective outcomes and feelings of resentment towards parents (Assor et al., 2004).

Together, these studies from the SDT framework suggest that psychologically controlling parenting yields maladaptive outcomes in specific life domains, because it fails to promote the internalization of these domain-specific behaviors and instead fosters a rigid and internally controlling approach to one's behavior (i.e., introjection).

Conclusion

Until recently, relatively little was known concerning the dynamics and processes that may explain relations between parental psychological control and adolescent maladjustment. Predictions derived from object-relational theory and self-determination theory, however, converge on the assumption that psychological control is related to an internally controlling (i.e., introjected) and perfectionist regulation of one's behavior and empirical research is increasingly confirming this assumption. Children of psychologically controlling parents appear to be alienated from their inherent preferences, interests, and potentialities, instead setting internally pressuring standards for themselves to which they rigidly adhere. Much like they experience their parents' love and approval as contingent upon meeting parental standards, they conditionally approve of themselves, thereby buttressing

themselves with negative feelings (e.g., guilt, shame, anxiety, and worthlessness) when standards are not met. This tendency to engage in negative self-evaluative processes, in turn, puts them at substantial risk for maladjustment in general and for and internalizing problems in particular.

Antecedents or Predictors of Psychological Control

Given that psychological control is consistently related to disturbances in adolescents' psycho-social functioning, it is important to gain a better understanding about the antecedents of psychological control. Why are some parents more likely to engage in psychological control? Such work is important because it may reveal essential information about how psychological control can be prevented.

A general heuristic framework for the search for antecedents is provided by socialization models which have distinguished between contextual factors, child-characteristics, and parental intra-individual characteristics as determinants of parenting (Belsky, 1984; Belsky & Barends, 2002; Reeve, 2002). Examples of social-structural factors influencing parenting behavior are the level of social support experienced by parents, the level of inter-parental conflict, the family's financial situation, and neighborhood-related factors. Intra-individual factors involve the parents' own personality functioning, developmental history, and features of mental health or psychopathology (e.g., parental depression; Blatt & Homann, 1992; Cummings & Davies, 1994). Child factors pertain to the child's own behavior, development, and temperament. In line with the well-established framework of antecedents of parenting, Grolnick (2003) distinguished three types of pressures that may make socialization figures more or less controlling, that is, pressures from above, pressures from below, and pressures from within.

Contextual sources or pressures from above

The larger context of the family may be more or less replete with factors that increase the risk that parents will use a controlling parenting style (Grolnick, 2003). There is evidence, for instance, that contextual features such as a dangerous neighborhood, financial strain, and social disadvantage relate to harsh and controlling parenting (e.g., Conger, Ge, Elder, Lorenz, & Simons, 1994; Gutman, McLoyd,

& Tokoyawa, 2005; Kotchick, Dorsey, & Heller, 2005). Moreover, it has been shown that such controlling socialization processes serve as mediators in relations between contextual factors and child maladjustment (such as internalizing and externalizing problems, and low achievement) (e.g., Conger et al., 1994). In other words, contextual adversity may render children more vulnerable to problem behavior because, under such circumstances, parents are less able to refrain from controlling and pressuring parenting tactics. To the best of our knowledge, however, such processes remain to be specifically documented with respect to psychologically controlling parenting.

In addition to tangible stressors and risk factors such as financial strain, the interpersonal networks of the family and the quality of the mother-father relationship have been identified as determinants of the quality of parents' rearing style. For instance, the amount of social support that mothers experience from people in general and from their spouses in particular has been shown to relate negatively to indicators of harsh, overtly hostile, and controlling parenting (Belsky, 1984; Simons, Lorenz, Wu, & Conger, 1993).

Importantly, a number of studies have addressed the impact of interpersonal sources of stress and support on psychological control. It has been found, for instance, that low marital quality and the amount of overt and covert inter-parental conflict are related to more psychologically controlling parenting (e.g., Fauber, Forehand, Thomas, & Wierson, 1990; Krishnakumar, Buehler, & Barber, 2003; Stone, Buehler, & Barber, 2002), indicating that parents may extend the negative emotions and conflicts experienced in the marital relationship to the parent-child relationship. Psychological control, in turn, appears to play an intervening role in relations between marital quality and inter-parental hostility and child maladjustment (e.g., Buehler, Benson, & Gerard, 2006; Fauber et al., 1990; Stone et al., 2002). Thus, the interpersonal pressures associated with a non-optimal marriage seem to be carried over to children's and adolescents' maladjustment through psychological control.

Child-characteristics or pressures from below

A second type of pressure arises from the behavior and development of the children and

adolescents themselves. In keeping with transactional models of socialization (e.g., Magnusson, 1988), controlling parenting may not only increase the probability of difficult, withdrawn, or depressed behavior in adolescents but adolescents' experience and display of problem behavior may also elicit higher levels of parental control and detract parents from being autonomy supportive. Well-known in this regard is the longitudinal research by Patterson (1982) demonstrating the existence of coercive cycles in the parent-child interaction, whereby parents respond to difficult behavior by increasing the use of power assertion and pressure, which in turn further exacerbates the problem behavior of the child.

Recent research is increasingly providing evidence for this hypothesis with respect to psychologically controlling parenting. Pettit, Laird, Dodge, Bates, and Criss (2001), for instance, found that children's early display of externalizing problems at Age 3 significantly predicted mothers' use of psychological control at Age 12. Pomerantz and Eaton (2001) found similar evidence in the academic domain. Children's low achievement was found to elicit mothers' use of intrusive control. Additionally, longitudinal research with adolescents (e.g., Barber, Stolz, et al., 2005) shows that adolescents who experience relatively more depression view their parents as becoming increasingly psychologically controlling. Together, such studies show that children's own display of problem behavior, whether this behavior is itself a consequence of the parents' behavior or whether it is a consequence of underlying temperamental characteristics, is a significant antecedent of psychological control.

Parent-characteristics or pressures from within

Although there are indications that particular social-contextual factors and child characteristics are predictors of psychological control, Barber et al. (2002) hypothesized that parents' own psychological status and developmental history are the most powerful sources of psychological control. According to Barber et al. (2002), the manipulative and boundary-violating behaviors of psychologically controlling parents are closely intertwined with the quality of the socialization experienced by parents themselves and with their subsequent personality functioning. Although this is an intriguing hypothesis, this idea has remained virtually unexplored to date. In this dissertation, two studies (presented in

Chapter 5 and Chapter 6) have dealt with parental intra-individual characteristics as predictors of psychological control.

In line with Barber et al.'s (2002) reasoning, different authors have noted dysfunctional features in controlling parents' personality. First, controlling parents in general and psychologically controlling parents in particular have been described as achievement-oriented (Pomerantz & Eaton, 2001), ego-involved (Grolnick, Gurland, De Courcey, & Jacob, 2002; Grolnick, 2003), perfectionist (Blatt, 1995b; Flett, Hewitt, Oliver, & MacDonald, 2002), and high on fear of failure (Elliot & Thrash, 2004). Common to these accounts is the idea that parents who feel internally pressured to achieve high performance also demand perfect achievement from their children. In communicating these demands toward their children, they would engage in the same internally pressuring tactics (e.g., guilt-induction) that they also use towards themselves.

Some experimental evidence for this hypothesis is available. Grolnick et al. (2002) had one group of mother-child dyads working on a school-like task (e.g., writing a poem) under pressuring and ego-involved conditions and another group under less achievement-oriented, low-pressure conditions. Mothers in the high pressure group were told, "Your role is to ensure that your child learns to write a poem. We will be testing him/her afterwards to make sure that he/she performs well enough". This instruction aimed to make the mothers feel internally pressured by stressing achievement and by putting the mothers' self-worth at stake (i.e., ego-involvement). By contrast, mothers in the low pressure condition were told, "Your role is to help your child learn how to write a poem. We will be asking him/her some questions after but there is no particular level at which he/she needs to perform." Compared to mothers in the low-pressure condition, mothers in the ego-involved, high-pressuring condition generally behaved in a more directive and controlling fashion towards their children (e.g., by frequently taking over from the child) during the task. In turn, children whose mothers had been in the high pressure condition performed worse on the tasks compared to the children of mothers in the low pressure condition. Hence, mothers who are oriented towards high achievement and who are ego-involved in the

performance of their child translate this involvement in controlling behavior. Most likely, a similar dynamic is going on in perfectionist mothers, as these mothers are naturally inclined to put themselves under pressure and to hinge their self-worth on perfect achievement.

Against the background of these theoretical accounts and studies, Chapter 5 of this dissertation explored parents' maladaptive perfectionism as an antecedent of psychological control. As outlined earlier, maladaptive perfectionist parents are rigidly focused on the achievement of their personal goals and standards, to such an extent that they are continuously concerned that they may fail to attain them. This rigid focus on personal standards may render parents less likely to respond empathically to their children's needs. Instead, perfectionist parents are likely to pressure their children to adopt the high standards and norms that parents hold for themselves: as perfectionist parents have strong fears of being unable to achieve their own goals, they may project their own goals onto their children, thereby becoming ego-involved in their children's behaviors and performances. Moreover, as maladaptive perfectionists are known to engage in negative self-evaluative processes towards themselves, they are likely to also critically evaluate their children's behaviors, and induce guilt or withdraw care and interest when their offspring does not meet their expectations (i.e., to display high psychological control) (e.g., Flett et al., 2002).

Consistent with this reasoning, it was found that psychological control was predicted by parental maladaptive perfectionism (see Chapter 5). Further, psychological control was found to mediate the effect of parental maladaptive perfectionism on adolescent maladaptive perfectionism, suggesting that psychological control contributes to the intergenerational transmission of maladaptive perfectionism. Together, the findings suggest that parental maladaptive perfectionism translates into conditionally approving and guilt-inducing parenting. To the extent that adolescents experience that their parents' approval is only conditional upon meeting achievement-related and perfectionist standards, they may in turn apply these dynamics intra-personally, thereby critically evaluating their own behavior and developing a maladaptive perfectionist orientation themselves.

Apart from the cluster of parent characteristics described in the preceding paragraphs (i.e., self-criticism / perfectionism and ego-involvement), authors have described controlling parents as fostering dependency (Baumrind, 1971), overprotective (Holmbeck et al., 2002; Parker, 1983), possessive / infantilizing (Barber & Harmon, 2002), and suffering from separation-individuation-related impairments (Minuchin, 1974). Possibly as the result of their own upbringing, some parents may develop a clinging and dependent orientation towards others in general and towards their children in particular. These parents are likely to engage in intrusive parenting as a means to make their children emotionally and psychologically dependent on them. Specifically, parents would infantilize their children, restrict attempts by children to obtain some degree of separation from the parent, and unduly emphasize the affectional bonds between parent and child (Barber & Harmon, 2002). Closely related to this description of controlling parents as dependency-oriented is the notion of the enmeshed family (Barber & Buehler, 1996; Minuchin, 1974). Enmeshed families are characterized by a lack of interpersonal boundaries between its members, which hinders the development of children's healthy individuation. Children are not allowed to distance themselves from their parents or to have their own lives and experiences. In such families, parents use control to keep family members within strictly defined family boundaries (Barber & Buehler, 1996).

It is interesting to note that the distinction between perfectionist and dependency-related parental features as antecedents of psychological control is perfectly in keeping with the object-relational perspective discussed earlier. Along with cognitive-behavioral (Beck, 1983), and attachment perspectives (Bowlby, 1980, 1988), the theory of Blatt (1974, 2004) distinguishes between a perfectionist, self-critical disposition and a dependent, preoccupied, or separation-anxious disposition, each of which create a specific vulnerability to psychopathology in general and to depression in particular (Blatt & Shichman, 1983). The self-critical disposition has been described earlier. The *dependent* vulnerability is characterized by strong concerns involving interpersonal relations, separation anxiety and by exaggerated dependency on others. Dependent individuals rely intensely on others to

provide and maintain a sense of well-being, resulting in difficulties with separation and loss. They often develop a claiming and clinging interpersonal style towards others. Negative life events or stressors in the interpersonal domain (e.g., divorce, separation) may lead to a type of depression characterized by feelings of loneliness, weakness, and fears of abandonment (Blatt, 1974).

There is a clear resemblance between this vulnerability disposition and the separation-anxious/dependent orientation described in research on the antecedents of psychological control. Most likely, a general dependent orientation expresses itself as separation anxiety within a specific parent-child relationship. Parents who are generally preoccupied with the loss of interpersonal relations are inclined to experience high levels of anxiety about separation from their children. Moreover, a separation-anxious orientation may be particularly predictive of parents' use of psychological control during adolescence, an age period which is characterized by an increase in autonomous behavioral regulation. Separation-anxious parents may interpret their children's increasingly autonomous functioning as an indication of an impending process of separation. Given their own developmental history and personality functioning, they may perceive their child's increasing autonomy as a threat to the relationship they have with their child or, in other words, as a threat of loss (Bowlby, 1980). Reactions to this threat of loss may include anxiety associated with being apart from the child, sadness, and anger about the inability to remain in close proximity of the child (Hock, Eberly, Bartle-Haring, Ellwanger, & Widaman, 2001; Hock, McBride, & Gnezda, 1989). Driven by such fears, parents may then engage in psychological control as a means to keep their adolescent children physically and emotionally close to them.

Given that separation anxiety is thought to be involved in parents' use of psychological control and given that separation anxiety and perfectionism may represent distinct predictors of psychological control, Chapter 6 of this dissertation examined both parental features simultaneously as predictors of psychological control. As expected, it was found that parents who have difficulties tolerating (episodes of) separation from their adolescent child (i.e., separation anxiety) were more likely to frequently use a

psychologically controlling rearing style. Moreover, separation anxiety and maladaptive perfectionism were found to predict independent variance in psychological control, indicating that both represent distinct antecedents of psychological control.

Conclusion

In line with Barber et al.'s (2002) claim that parents' own psychological status is a main source of psychological control, our work has shown that theoretically predicted parental features such as maladaptive perfectionism and separation anxiety are strongly and consistently related to their use of psychological control. Apart from providing more theoretical insight in the processes that make parents resort to the use of psychological control, we believe these findings have important implications for the prevention of intrusive parenting and, therefore, also indirectly for the prevention of maladjustment in adolescents. Given that psychologically controlling parenting is a multiply determined phenomenon, effective treatment and prevention of intrusive parenting will need to take the form of an integrated approach, taking into account risk factors arising from the social-contextual environment, from the child's behavior and from the parents' own functioning. Our findings suggest that, within such an integrated approach, parents' own functioning may warrant specific consideration in counseling and therapeutic situations.

The finding that parents' use of psychological control is closely related to their personal functioning suggests that it may not be a straightforward task to teach parents to refrain from engaging in intrusive parenting behaviors. Although providing parents with insight in their intrusive parenting behaviors and demonstrating them alternative (e.g., autonomy-supportive) approaches to communicate with their children may help to improve the quality of their parenting in the short term, it may not be effective in the long run. As parents' use of psychological control seems to be closely intertwined with their everyday personal functioning, parents are likely to relapse in their old patterns of psychologically controlling parenting as long as their personality functioning has not fundamentally changed. For instance, one may teach a perfectionist parent to avoid the use of psychological control in a family-

based therapeutic intervention. However, as soon as this father experiences a life event involving failure, his negative self-evaluative processes are likely to come into prominence again and to override the effects of the intervention so that he falls back on earlier patterns of manipulative and internally controlling parenting. Therefore, long-term and sustained change in the use of psychological control may require a more fundamental intervention in parents' personality functioning.

Although such a fundamental intervention may seem a rather daunting task, a wide variety of interventions aimed at personality dimensions such as self-criticism / perfectionism and dependency / separation anxiety is currently available (Blatt, 2004; Blatt & Zuroff, 2002; Flett & Hewitt, 2002). More importantly, much knowledge has been gained about which specific therapeutic interventions are most effective in treating problems related to self-criticism / perfectionism and dependency / separation anxiety. Blatt (1992, 2004; Blatt & Ford, 1994), for instance, found that self-critical, perfectionist individuals are more responsive than other individuals to long-term, intensive, psycho-dynamically oriented therapy. As perfectionists often have deeply entrenched maladaptive thoughts about themselves and others, a substantial period of time is required for perfectionist people to alter their maladaptive cognitions. Further, perfectionist individuals benefit the most from insight-oriented treatment because this type of treatment allows them to become aware of the negative consequences associated with their rigid adherence to unrealistic standards and their continuous self-scrutiny. This awareness is a first important step in the process of gradually letting go of perfectionists' critical judgmental introjects and negative cognitions of self and others and replacing them with more stable, accepting, and flexible representations of oneself and others (Flett & Hewitt, 2002).

In contrast, dependent people have been found to be less responsive to such insight-oriented psychoanalysis because this type of intervention is characterized by a more distant and awaiting attitude by the therapist. As they are primarily struggling with issues of interpersonal loss, dependency, and separation anxiety, it is of primordial importance for dependent individuals to feel secure in the therapeutic relationship so that they are no longer threatened by fears of abandonment and loss. In line

with this reasoning, dependent, separation-anxious individuals have been found to be more responsive to short-term supportive-expressive psychotherapy (Blatt, 2004). With this interpersonally supportive type of therapeutic intervention, dependent individuals are better able to focus on their difficulty managing disrupted relationships and to work through their fears of abandonment and loss and their concerns about the dependability of interpersonal relations.

In sum, the research by Blatt (1992, 2004) has shown that therapeutic interventions can significantly ameliorate the psychological functioning of perfectionist / self-critical and dependent / separation-anxious individuals. It seems plausible to assume that the beneficial effects of such interventions may carry over into the interpersonal functioning of individuals as well and to the quality of the rearing behaviors of perfectionist and separation-anxious parents in particular (Flett et al., 2002; Flett & Hewitt, 2002). An important implication of Blatt's (2004) findings is that an effective treatment of psychologically controlling parenting should take into account the personality features of parents and that any intervention aimed at reducing the use of psychological control should be attuned to these specific parental features. Specifically, whereas perfectionist parents would benefit more from long-term insight-oriented therapy, dependent or separation-anxious parents would benefit more from short-term relational therapy. Although clinical research needs to confirm these hypotheses, intervening in parents' psychological functioning may thus provide an indirect but perhaps long-lasting means to prevent parents from engaging in intrusive parenting.

Direction of Effects

To date, most of the research on psychological control has been correlational and cross-sectional in nature. Although this research has consistently demonstrated that psychological control is associated with negative affective, social, motivational, academic, and behavioral outcomes in adolescents, the direction of effects in these associations is unclear. Although psychological control is typically viewed as an antecedent to impairments in adolescents' psychosocial functioning, it may also be a mere concomitant of adolescents' functioning or even a consequence of adolescents' functioning.

It has been suggested, for instance, that children and their adjustment influence parents' child-rearing patterns (e.g., Bell, 1968; Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Harris, 1995). Further, transactional theories of socialization have stressed that parent and child behaviors develop interdependently in mutually reinforcing ways (e.g., Caspi, 1998; Kerr & Stattin, 2003; Magnusson, 1988; Sameroff & Fiese, 2000). According to this view, parents do not only influence their children's behavior and development, children's behavior, in turn, further shape, and elicits parents' rearing behaviors. As a consequence of this reciprocal process, interactional patterns between parents and children become increasingly stable and self-sustaining. These views on the socialization process suggest that a unidirectional view on the relation between psychological control and adolescent development is likely to be an oversimplification of a more complex reality and that it is essential to map out the dynamic interactions between psychological control and adolescent functioning.

In order to shed more light on the direction of effects involved in relations between psychological control and adolescent psychosocial functioning, recent research has followed a two-pronged approach, that is, (a) research tries to experimentally manipulate a psychologically controlling communication style, and (b) research tries to examine longitudinal, cross-lagged associations between psychological control and adolescent outcomes.

Experimental research

Consistent with Barber et al.'s (2002) call to use more diverse operationalizations of the construct of psychological control, a recent study by Vansteenkiste, Simons, Lens, Soenens, and Matos (2005) used an experimental rather than a correlational design to examine the effects of psychological control (versus autonomy support) on early adolescents' actual learning behavior. Specifically, the outcomes studied in this research were two different types of learning, that is, conceptual and rote learning.

The psychological control manipulation was operationalized by using subtle guilt-inducing statements (e.g., "it's for your own good that I tell you to do your best for the reading") and by using instructions that aimed to place children's self-esteem at stake (e.g., "you feel better about yourself if

you do your best for the reading"). In contrast, in an autonomy-supportive condition, children were encouraged to decide for themselves whether they would want to put effort in reading the text material. It was predicted that psychological control versus autonomy support would have a debilitating impact on children's conceptual learning, but not on their rote learning. The internal pressure that is caused by the psychologically controlling instructions interferes with a thoughtful elaboration of the reading material, which is required for conceptual learning to take place. Furthermore, because internal pressures are often experienced as highly motivating, children were expected to display some behavioral engagement with the learning, an expectation which is in line with the correlational findings reported by Assor et al. (2004). However, the learning behavior is likely to be less committed and more superficial, because it is undertaken primarily as a means to suppress the internally pressuring forces that prompted the learning.

Consistent with these hypotheses, results from three experimental field studies indicated that psychological control, relative to autonomy support, undermined a conceptual integration of the reading material, but such a debilitating effect was not found on rote learning. Two additional findings merit being mentioned. First, Study 1 also showed that the undermining effects of psychological control on conceptual learning were equally strong compared to the effects of external control. Second, replicating the findings by Vansteenkiste, Zhou et al. (2005) among Chinese adolescents, Study 3 showed that psychological control, relative to autonomy support, resulted in poorer conceptual integration of the reading material, because it undermined children's relative autonomous engagement in the reading.

Other experimental studies (Vansteenkiste, Simons, Braet, Bachman, & Deci, 2005) examined the impact of psychological control versus autonomy support upon persistence. As noted earlier, under the influence of psychological control, individuals face an inner conflict, in which they feel a strong inner urge to take up the activity to meet the internal pressures, but simultaneously have the inclination to give up the activity because it is not motivated by their personal values and interests. Therefore, it was suggested that the internal pressure that is induced by psychological control would drive individuals to initially persist at the activity, but would also fail to result in persistence at the requested activity over

time. Vansteenkiste, Simons, Braet, et al. (2005) reasoned that the internal conflict between taking up versus leaving the activity is likely to be mentally draining and ego-depleting, so that individuals lack the energy to persist at the activity over time. In contrast, autonomy-supportive environments were expected to lead to persistence at both the short and long term, because people's behavioral engagement is fully self-initated in these circumstances. Because the behavior is an expression of one's integrated values and interests, persistence at the activity might create energy instead of consuming mental resources, leading to persistence at the activity over time. These hypotheses were supported (Vansteenkiste, Simons, Braet, et al., 2005). One experimental study among obese children examined the impact of psychological control versus autonomy support upon a variety of persistence outcomes, including the adoption of a healthy life style, exercise participation, adherence to a dietary regime, and weight loss. Although psychological control elicited some initial positive changes so that children adopted a healthier life style in the first week following the experiment compared to base-line assessment, these benefits were lost by the third week after the experiment. In contrast, children involved in the autonomy-supportive conditions continued to improve their healthy eating and drinking habits, persisted at the physical exercises, continued to show up for the 10-week long diet program, and lost significantly more weight at 4 months, 6 months, one year, and two years after the experiment. Thus, just as psychologically controlling environments prompt some learning, albeit of a superficial type, they cause some persistence at the requested activity, but only over the short term.

Relative to cross-sectional correlational studies, these experimental studies allow researchers to state with a higher degree of certainty that a psychologically controlling communication style represents a (causal) determinant of reduced quality of learning and a lack of behavioral persistence in children and adolescents. As these experiments manipulate a general communication style, however, they do not specifically inform us about the direction of effects involved in the association between a psychologically controlling *parenting* style and adolescents' functioning. The latter issue has been addressed in recent longitudinal research.

Longitudinal research

Cross-lagged longitudinal research allows one to examine the effect of an independent variable (e.g., psychological control) on subsequent levels of a dependent variable (e.g., adolescent depression) controlling for prior levels of the dependent variable and for the concurrent association between both variables. Controlling for these two associations, any effect of the independent is said to represent an effect on over-time changes in the dependent variable and to give an indication of the direction of effects in this association (Asendorpf & Van Aken, 2003; Burkholder & Harlow, 2003).

Several studies have found that psychological control predicts (a) increases in indicators of maladjustment, including internalizing problems (Conger et al., 1997) and somatic complaints (Herman et al., 1997) and (b) decreases in indicators of positive adjustment, including school grades (Steinberg et al., 1989) and socio-emotional well-being (Soucy & Larose, 2000). Other studies have found associations between measurements of psychological control at the beginning of the study and estimated latent trajectories of the outcome variables over the course of the study (Aunola & Nurmi, 2004, 2005; Galambos et al., 2003). Aunola and Nurmi (2005), for instance, found that initial levels of maternal psychological control predicted increases in internalizing and externalizing problems, though only when combined with high levels of maternal responsiveness. All of these studies, however, only included psychological control at the first measurement point, which does not allow one to examine possible reciprocal effects from adolescent adjustment to psychological control.

A recent study by Barber, Stolz, et al. (2005) did provide some evidence for reciprocal relations between psychological control and adolescent depression. It was found that psychological control measured at the onset of the study was significantly related to adolescent depression at the second measurement wave (i.e., one year later) which, in turn, significantly predicted psychological control at the third measurement wave (i.e., again one year later).

Another study by Luyckx, Soenens, Vansteenkiste, Goossens, and Berzonsky (in press) recently extended this research by examining the longitudinal effects of psychological control on crucial

dimensions of the identity formation process. Using five-wave longitudinal data, cross-lagged regression analyses showed that initial levels of psychological control predicted decreases in late adolescents' levels of commitment making and identification making. These findings indicate that adolescents who perceive their parents as more psychologically controlling at the onset of the study (a) decrease in their ability to arrive at stable and committed identity-relevant choices and (b) experience decreases in the level of confidence and certainty associated with the commitments that they do make. Interestingly, Luyckx, Soenens, et al. (in press) also found that initial levels of adolescent exploration in breadth predicted increases in perceived psychological control over time. The latter finding might indicate that parents who observe that their adolescent child continues to explore diverse life paths and alternatives (i.e., exploration in breadth) become highly concerned and anxious about their child's future and development. Driven by such anxious concerns, parents may resort to psychologically controlling tactics to pressure their child to end his or her broad identity exploration. Together, the results of this study suggest that parents' use of psychological control does not only affect adolescent identity development but also partly follows from the quality of the identity formation process and, hence, that intrusive parenting and identity formation outcomes are reciprocally related.

Ideally, a longitudinal design includes both the supposed independent variable and the supposed dependent variable at every measurement wave and simultaneously controls for stability in both constructs and for every possible within-time association (Rueter & Conger, 1998). None of the cited studies, however, meets these strict requirements, either because they did not control for stability in both variables simultaneously (e.g., Luyckx, Soenens, et al., in press) or because they did not control for within-time associations between both variables (e.g., Barber, Stolz, et al., 2005). The set of studies reported in Chapter 7 aimed to remediate these methodological shortcomings by examining longitudinal associations between psychological control and adolescent depressive feelings using a fully cross-lagged longitudinal design (Rueter & Conger, 1998). Contrary to past research, this study explicitly tested and compared three models of associations between psychological control and depressive

feelings, that is, a psychological control main effects model, an adolescent depression main effects model, and a reciprocal model. Across two samples of middle and late adolescents, findings generally favored the reciprocal model over the main effects models.

Conclusion

Much knowledge has recently been gained regarding the nature of the relation between psychological control and adolescent adjustment and behavior. Experimental and cross-lagged longitudinal studies converge in their findings that psychological control represents more than a mere concomitant or consequence of adolescent development. Experimental manipulations of a psychologically controlling communication style elicit maladaptive learning processes and a lack of long-term behavioral persistence. Moreover, longitudinal studies show that ratings of parental psychological control typically predict over-time changes (i.e., decreases) in adolescents' adjustment.

In addition, the results of a number of longitudinal studies – including the findings reported in this dissertation (Chapter 7) – indicate that adolescent maladjustment also predicts increases in psychological control. Such results confirm the key assumption of transactional models of socialization that parenting and child development are reciprocally related. Specifically with regard to psychological control, it appears that parents and adolescents may become trapped in a negative vicious cycle of increasing parental intrusiveness and increasing adolescent distress. As adolescents perceive their parents to be psychologically controlling, they become increasingly prone to experience negative affects. In turn, parents appear to typically respond to their adolescents' distress by increasing rather than decreasing the level of pressure and internal control in the parent-child interaction. Although this increase in psychological control may, in some instances, represent a well-meant attempt by parents to revitalize and brighten up their adolescent child, it seems to have counterproductive results, as it further increases the adolescent's distress over time.

PART II

PSYCHOLOGICAL CONTROL: AN EXPLORATION IN BREADTH

Although psychological control was originally thought to be specifically related to internalizing problems in children and adolescents (e.g., Barber et al., 1994), recent research has shown that this construct has a broader relevance towards adolescents' psychosocial functioning. In addition, as psychological control represents only one aspect of parents' rearing, it is important to study psychological control in the context of other relevant parenting dimensions rather than as an isolated construct. Such an approach could not only further our understanding of the construct itself but may also help researchers to elucidate how and why the negative effects of psychological control carry over into a wide variety of areas in adolescents' functioning. Specifically, this section deals with three topics that are focused upon in Part II (Chapters 8-11), that is, (a) the relation between psychological control and parental autonomy-support, (b) the role of psychological control and externalizing problems, and (c) the role of psychological control in adolescents' social and interpersonal functioning.

Psychological Control versus Psychological Autonomy

Early research on psychological control contrasted the construct with parental support for psychological autonomy. Schaefer (1965a), for instance, labeled this dimension Psychological Autonomy versus Psychological Control, thereby implicitly assuming that psychological control and autonomy support constitute opposite ends of a continuum. In line with this, several researchers who actually used items tapping psychological control reverse-scored their items and interpreted the resulting score as reflecting autonomy support (e.g., Gray & Steinberg, 1999; Herman et al., 1997).

Recently, however, this assumption has been challenged (Barber et al., 2002; Bumpus, Crouter, & McHale, 2001; Pomerantz & Ruble, 1998; Silk, Morris, Kanaya, & Steinberg, 2003; Skinner, Johnson, & Snyder, 2005). According to Barber et al. (2002, p. 271), for instance, "the fact that a parent does not

apply psychological control to a child does not automatically mean that this parent is encouraging or fostering autonomy. It is possible that this parent engages in no explicit encouragement of autonomy". Whereas Barber et al. (2002) seem to suggest that psychological control and support for psychological autonomy are distinct yet negatively correlated parenting dimensions, Silk et al. (2003) took this idea one step further and explicitly assert that both constructs are independent: "[…] parents may be low on autonomy granting without being psychologically controlling and may be psychologically controlling and also grant autonomy" (Silk et al., 2003, p. 115).

To test their ideas, Silk et al. (2003) created a measure of 'parental autonomy granting' from a larger set of items which did not explicitly intend to measure autonomy granting. The 8 items tapping autonomy granting were then factor-analyzed together with a set of 8 items tapping psychological control. CFA indicated that both scales were distinct and nearly orthogonal – the correlation between both scales was -.18. Further testifying to the distinctiveness of both dimensions, autonomy granting and psychological control were found to predict independent variance in a number of outcome variables, including internalizing and externalizing problems.

The findings of Silk et al. (2003) seem to imply that parental support for adolescents' autonomy and psychological control are virtually orthogonal dimensions, a conclusion which contrasts with SDT's view on relations between these constructs. As already outlined earlier, within SDT, psychological control is strongly contrasted with the concept of autonomy-support, to such an extent that both are considered highly incompatible parenting dimensions. In line with the idea that psychological control and autonomy support are highly incompatible, many studies within the SDT framework have shown strongly negative correlations between assessments of autonomy support and measures of parental (psychological) control (e.g., Grolnick, 2003; Soenens & Vansteenkiste, 2005; Vansteenkiste, Zhou, et al., 2005). How can these two seemingly contradictory views on the relation between psychological control and autonomy support be reconciled? One explanation for the discrepancy between both views is that they use a substantially different definition of what it means to be autonomy-supportive.

The distinction between these two fundamentally different views on autonomy support is outlined in Chapter 8. Silk et al. (2003) define autonomy-support from the framework of separation-individuation theory, which assumes that adolescent autonomy entails a process of becoming independent, self-reliant, and individuated. This process implies that adolescents shed off close ties with parents, stand on their own two feet and learn to make decisions independently from others and parents in particular. In line with such a view on autonomy, Silk et al. (2003) have defined autonomy support as parents' encouragement of adolescents' independent expression and decision-making. Defined in this way, the opposite of independence-promotion is not (psychological) control, but the fostering of dependency and the development of a relation in which the child continues to rely on the parent. This conceptualization of autonomy support is referred to as Promotion of Independence (PI) in Chapter 8.

SDT defines autonomy and autonomy-support in a very different way. Within SDT, autonomy support refers to the encouragement of volitional functioning. Autonomy-supportive parents provide the appropriate amount of choice, they give a meaningful rationale in case choice is constrained, and they adopt an empathic stance towards others, thereby acknowledging the other person's perspective (Deci et al., 1994). On average, autonomy-supportive agents will minimize the use of psychologically and externally demanding principles, because they aim to support people's self-expression rather than to push others in personally desired directions (Grolnick, 2003). Autonomy-supportive parents allow individuals to realize their personal values and interests, and provide the necessary guidelines and structure to make this happen. In contrast, psychologically controlling agents often project their own wishes and needs onto others, thereby neglecting other individuals' opinion and forcing them through subtly controlling cues to follow a particular line of behavior. In short, SDT argues that the provision of autonomy-support is highly incompatible with the use of psychological control. This conceptualization of autonomy support is referred to as Promotion of Volitional Functioning (PVF) in Chapter 8.

Importantly, PI and PVF are very distinct constructs (Ryan, 1995). As a parent, one may foster independence in a child either in a willing and choiceful fashion (i.e., high PI, high PVF) or in a

controlling and pressuring fashion (i.e., high PI, low PVF). To illustrate the latter pattern, parents may force their children to leave the house at an early age (i.e., physical independence) or may insist in a pressuring way that their children develop an opinion of their own, independent of the parents' opinion (i.e., cognitive independence). Although such parents encourage independence (high PI), they are not doing so in a volitional fashion because the child is pressured and forced to behave and think independently (low PVF). Conversely, parents may either allow their children to depend on them if they want to do so (low PI, high PVF) or they may force their offspring to depend on them (low PI, low PVF).

Chapter 8 shows that PI and PVF represent distinct factors and, hence, represent two qualitatively different ways of tapping into the construct of autonomy-support. Moreover, in line with hypotheses derived from SDT, Chapter 8 demonstrates that PVF is more fundamental to adolescents' well-being than PI. Whether or not parents encourage their children to become independent from them (i.e., PI) appears to be less important for adolescents' well-being than the extent to which parents do so in a willing and choiceful manner (i.e., PVF).

Importantly for the issue at hand (i.e., the relation between psychological control and autonomy support), Chapter 8 showed that PI and PVF show a significantly different pattern of associations with psychological control. Although both PI and PVF are negatively related to psychological control, the correlation between PVF and psychological control was found to be more pronounced than the correlation between PI and psychological control. After controlling for the variance shared by PI and PVF, PI was even found to be uncorrelated to psychological control.

Hence, when considering the relationship between psychological control and autonomy support, it seems vitally important to make a clear distinction between different conceptualizations of autonomy support. Psychological control is strongly distinct from or even orthogonal to PI. This finding suggests that parents may encourage their children to become independent either in psychologically controlling fashion (e.g., through guilt-induction) or in a non-psychologically-controlling fashion. In contrast, psychological control and PVF seem to be highly negatively correlated and thus incompatible parenting

dimensions, although it should be noted that, even within SDT, both dimensions are not considered opposite ends of a single continuum. Parents who provide their children with choices, who are empathic to their children's needs, and who encourage their children to behave on the basis of self-endorsed goals and values (i.e., PVF), on average, do not engage in manipulative and guilt-inducing parenting tactics (i.e., psychological control).

However, the negative correlation between psychological control and PVF was not a perfect one and in a number of CFA's (not reported in Chapter 8) we found that PVF and psychological control emerged as highly negatively correlated, yet distinct, factors. How can these findings be explained? First, as pointed out by Barber et al. (2002), the fact that a parent refrains from intrusive parenting behaviors does not automatically imply that this parent will actively encourage or foster autonomous functioning in his or her child. Second, it is important to note that whereas PVF pertains to a broad construct involving a variety of autonomy-supportive parenting behaviors, psychological control represents only one specific type of controlling parenting. Within SDT, it is argued that parents and socialization agents can be controlling in a number of different ways. Specifically, a distinction is made between internally controlling and externally controlling socialization strategies. Psychological control clearly represents an internally controlling type of socialization, as it involves intrusions upon the psychological world of the child and pressuring tactics aimed at the feelings and emotions of the child (e.g., guilt, shame, and separation anxiety). Internally controlling socialization is thought to give rise to an introjected regulation of one's behavior, cognitions, and emotions (Deci & Ryan, 2000; Ryan et al., in press); although people act on the basis of internal motives (e.g., alleviating feelings of guilt), their motives are associated with feelings of pressure and are not fully in accordance with people's authentic goals and aspirations.

In addition to internally controlling socialization strategies such as psychological control, SDT argues that people's behavior can also be forced through external contingencies, such as explicit rewards and punishments, deadlines, overtly controlling vocalizations (e.g., "you have to") and corporal

punishments. The term ‘externally controlling environment’ is used to refer to these more overt and manifest controlling means. Whereas psychological control is expected to hinder performance, well-being and personal development because it gives rise to an introjected regulation, external control is expected to undermine optimal functioning by fostering an external regulation. When externally regulated, people feel obliged and pressured to behave, think and feel in particular ways for reasons that reside outside the person (e.g., rewards and punishments).

The point we would like to make is that psychological control represents only one specific way to be non-autonomy-supportive. Besides psychological control, there are other ways in which parents can thwart their children’s feelings of volition and autonomy. Hence, although psychologically controlling parenting is clearly antithetical to autonomy-supportive parenting – defined as PVF – it pertains to a specific type of parental control. Broader assessments of parental control including both expressions of internally and externally controlling parenting may even be more strongly negatively correlated with PVF, even to the extent that such correlations may approach a perfectly negative association.

A third reason why assessments of psychological control and PVF are not perfectly negatively correlated may be that both constructs have typically been tapped at a rather general level rather than at a more domain-specific or situational level. The possibility exists that psychological control and PVF are more strongly negatively correlated when assessed in reference to parents’ behaviors in specific situations, such as helping with homework or providing a rule for hanging out with friends.

At the situation-specific level, parents are most likely perceived as being either autonomy-supportive or (psychologically) controlling. When a mother acts in an intrusive, achievement-oriented and conditionally approving fashion towards her child while helping the child with homework, she is by definition acting in a non-autonomy supportive fashion. Conversely, a mother who helps her child with homework by providing choices and options and by structuring the homework in such a way that the child experiences the homework as useful or even fun is by definition behaving in a non-intrusive fashion. Hence, within a given specific situation, autonomy support (PVF) and psychological control

exclude one another, so that a (nearly) perfect negative correlation between both constructs would emerge in this situation.

However, it may be that parents behave in a psychologically controlling way in certain domains and situations but behave in a more autonomy-supportive fashion in other domains. For instance, a father may typically engage in intrusive behaviors in the academic domain (e.g., homework) but engage in more autonomy-supportive behaviors when it comes to his child's friendships and relations (e.g., dating). Thus, at least in theory, patterns of psychologically controlling and autonomy-supportive parenting may come to co-exist in one and the same parent, which may explain why the correlation between PVF and psychological control is not perfectly negative when both constructs are assessed at a broad, cross-situational level.

Despite this, it should be noted that the strongly negative correlation between PVF and psychological control suggests that parents who behave in a controlling rather than autonomy-supportive fashion in one life domain typically behave in a similar fashion in other life domains as well. The latter idea is further supported by the earlier reported findings that parents' use of control versus autonomy is linked to their personality functioning, which makes it likely that parents' rearing style extends across different life domains. An interesting avenue for future research is to assess psychological control and conceptualizations of autonomy support in more specific life domains, in order to shed light on their relations within these more specific life domains.

Conclusion

The strength of the association between parental autonomy support and psychological control depends on the conceptualization and measurement of autonomy support. Although psychological control is largely orthogonal to the extent to which parents encourage their children to be independent from parents and other people (i.e. PI), it is highly incompatible with the extent to which parents encourage their children to behave on the basis of self-endorsed, volitionally chosen motives (i.e., PVF).

Given that psychological control and PVF are so strongly negatively correlated, a number of studies have relied on composite scores of psychologically controlling versus autonomy-supportive (PVF) parenting (e.g., Soenens & Vansteenkiste, 2005; Vansteenkiste, Zhou, et al., 2005). Although the creation of such a composite score is justified both by theoretical arguments (i.e., the claim within SDT that both dimensions are incompatible) and empirical arguments (i.e., the strongly negative correlations obtained between both constructs), one may also look at the specific effects of psychological control, as has been done in many other studies (Barber & Harmon, 2002). In our view, the choice of whether one relies on a composite score or on a specific assessment of psychological control depends on the researcher's interest. If one is interested in examining the extent to which parents behave autonomy-supportive rather than psychologically controlling, a composite score is the appropriate approach. If one is primarily interested, however, in the specific dynamics, effects or processes involved in parents' use of psychological control, it may be better to rely on a specific assessment of psychological control.

Psychological Control and Externalizing Problems

Although psychological control was initially theorized to be quite specifically linked to internalizing problems in children and adolescents, many studies have demonstrated associations with externalizing problems as well, although these associations were found somewhat less consistently than associations with internalizing problems (Barber & Harmon, 2002). Little is known, however, about the processes that link psychological control to externalizing problems in adolescents. The relative lack of theorizing and research on these processes may be caused by the fact that, whereas psychological control primarily represents a negative indicator of the quality of the relationship between parent and child (Barber et al., 2002), research on parenting and conduct problems has typically highlighted the role of parents' regulatory (rather than relational) capacities as a protective factor against externalizing problems. Specifically, parental behavioral control and monitoring are the parenting constructs that are most intensively studied in relation to externalizing problems (Barber, 1996; Dishion & McMahon, 1998).

Recent research, however, has seriously challenged the idea that parents' regulatory capacities are the only or even the main source of protection against adolescent conduct problems (Crouter & Head, 2002; Kerr & Stattin, 2000; Stattin & Kerr, 2000). Specifically, although monitoring has traditionally been conceptualized as an active parenting strategy (e.g., involving tracking of the child's whereabouts and solicitation of information from the child), recent research has pointed out the need to make a distinction between monitoring knowledge (i.e., what parents actually know) and monitoring processes (i.e., how parents obtain information). Monitoring-relevant knowledge pertains to whether parents are aware of and knowledgeable about their adolescents' whereabouts (Stattin & Kerr, 2000). Monitoring processes refer to how parents obtain such knowledge and involve a variety of methods such as active parental solicitation and tracking but also disclosure of information by the adolescent himself or herself (i.e., self-disclosure; Kerr & Stattin, 2000; Stattin & Kerr, 2000).

Contrary to prevailing ideas about the important role of active parental monitoring and behavioral control, research by Stattin and Kerr (2000) showed that adolescent self-disclosure was a far stronger predictor of parental monitoring-relevant knowledge of adolescents' conduct problems than active solicitation and rule setting by parents. Although, at a first glance, such findings may suggest that parenting, and parents' capacity to actively regulate their child's behavior in particular, is only weakly related to adolescents' problem behaviors, a number of authors have argued that the quality of parenting does affect problem behavior and parental monitoring-relevant knowledge indirectly. Specifically, high-quality parenting and effective family communication are likely to enhance the effectiveness of monitoring processes in general and self-disclosure in particular (Crouter & Head, 2002; Stattin & Kerr, 2000; Waizenhofer, Buchanan, & Jackson-Newsom, 2004) and may, as such, still indirectly protect against adolescent problem behaviors.

In line with these recent developments, there has been a shift in the research literature from a narrow focus on parents' capacities to regulate and monitor their children's behavior to a broader focus on the communication patterns in parent-adolescent relationships and on the general quality of the

parent-child relationship. Specifically, the literature witnesses an increased interest in the relational processes which promote adolescent disclosure (versus secretiveness) and parental monitoring-relevant knowledge (Crouter & Head, 2002; Finkenauer, Engels, & Meeus, 2002; Finkenauer, Frijns, Engels, & Kerkhof, 2005; Frijns, Finkenauer, Vermulst, & Engels, 2005; Smetana, Metzger, Gettman, & Campione-Barr, 2006). It has been found, for instance, that a trusting parent-child relationship contributes to higher levels of adolescent self-disclosure (Kerr, Stattin, & Trost, 1999). No study to date, however, examined psychological control in relation to adolescent self-disclosure.

Chapter 9 examined (a) how psychological control relates to the monitoring processes described in the preceding paragraphs and (b) whether such monitoring processes may mediate associations between psychological control and externalizing problems. The results of Chapter 9 provide evidence for a three-step model. First, psychological control was found to relate to lower levels of adolescent self-disclosure or, interpreted the other way around, with higher levels of secretiveness. Adolescent self-disclosure, in turn, related to higher levels of parental monitoring-relevant knowledge. Third, monitoring-relevant knowledge was strongly and consistently negatively related with a number of conduct problems such as delinquency, drug abuse, and affiliation with deviant friends. Generally speaking, psychological control did not contribute to the prediction of conduct problems above and beyond these intermediate monitoring processes, indicating that these processes at least partly explain the association between psychological control and externalizing problems.

Conclusion

The results of Chapter 9 suggest that adolescents who perceive their parents as psychologically controlling refrain from spontaneous self-disclosure about their behavior towards parents. One likely explanation for this finding is that adolescents of psychologically controlling parents typically experience that their parents react in a guilt-inducing and love withdrawing fashion when they disclose about behaviors that the parents do not approve of. As these adolescents anticipate negative and intrusive responses to their self-disclosure, they are likely to refrain from further self-disclosure. As a

consequence, parents are less knowledgeable about their adolescents' behaviors. This lack of parental monitoring-relevant knowledge in turn relates to higher susceptibility to affiliations with deviant friends and to engagement in externalizing problem behaviors.

The sequence of events described in the preceding paragraph may also follow a different direction of effects, however (e.g., Stattin & Kerr, 2000). Parents may respond to (rather than elicit) the externalizing problem behaviors of their adolescent child (which may relate to a temperamental vulnerability in the child) by increasing their levels of intrusive control. The experience of psychological control may in turn undermine the adolescent's willingness to disclose about his or her behavior. As a consequence, parents may become even less aware of the adolescent's whereabouts, which provides further opportunities to become involved in conduct problems. Most likely, these maladaptive communication patterns and the subsequent increase in externalizing problems associated with these patterns reinforce one another in a mutually enforcing fashion (e.g., Laird, Pettit, Bates, & Dodge, 2003; Patterson, 1982). Hence, although the impairments in communication patterns within families (with adolescents becoming increasingly secretive and parents becoming increasingly intrusive) may not be the initial cause of the adolescent's problem behaviors, this process may play a role in sustaining his or her susceptibility to such problems. Either way, psychological control appears to be a substantial part of the negative family communication that renders adolescents vulnerable to conduct problems.

Psychological Control and Social Adjustment

As outlined earlier, the negative developmental outcomes associated with psychological control are not limited to adolescents' intra-psychic functioning but appear to translate into impaired social functioning as well (Nelson & Crick, 2002). For instance, psychological control has been found to be associated with low levels of experienced support by peers (e.g., Karavasilis et al., 2003) and high levels of social anxiety (e.g., Loukas et al., 2005). An important question to be raised is which processes account for these negative social outcomes of psychological control.

According to Ladd and Pettit (2002), there are at least two broad pathways through which parenting processes may influence children's and adolescents' social development. First, the general quality of parents' rearing style may indirectly relate to the quality of children's peer and friendship relationships. Through their rearing style, parents may provide an important example to children of how to interact with others outside the family realm. In other words, the general quality of the parenting style may serve as a modeling template for children's own interpersonal style in social interactions which in turn, most likely, significantly affects the children's feelings of competence, satisfaction, and security in social relationships. Beyond such modeling mechanisms, parenting may indirectly determine children's social competence by impacting on internal self-processes such as representations of attachment relationships, the quality of which is vital to children's interpersonal behaviors and experiences.

Second, parents may also affect their children's interpersonal world in a more direct fashion, that is, by actively supervising, structuring, and regulating their children's relationships with peers and friends (Ladd & Pettit, 2002). Recent research is increasingly addressing the importance of such direct parental interventions in children's social world. Specifically, a number of researchers have empirically defined a number of parental peer management strategies and have examined how such strategies relate to interpersonal behaviors (e.g., Mounts, 2001, 2002; Vernberg, Beery, Ewell, & Abwender, 1993). According to Ladd and Pettit (2002), however, the psychological meaning as well as the efficacy of such parental interventions in social relationships needs to be considered against the background of parents' more general rearing style. In line with the model of Darling and Steinberg (1993), Ladd and Pettit (2002) propose that the extent to which parental interventions are experienced as responsive and appropriate versus illegitimate or coercive will ultimately determine the effectiveness of these strategies in fostering social competence and detracting children from negative peer influences.

In line with Ladd and Pettit's (2002) distinction between indirect and direct parental influences on adolescent social development, the present dissertation examined both (a) the role of psychological control as an element of parents' general rearing style which indirectly affects children's social

adjustment (Chapter 10) and (b) the role of psychological control in associations between parental strategies directly aimed at regulating adolescents' (peer) relationships (Chapter 11).

In Chapter 10, we reasoned that children of internally controlling and conditionally approving parents would extend the behavior that they learned in the parent-child relationship into their own peer relationships and friendships. In other words, children of psychologically controlling parenting would also conditionally approve their friends and peers, and use manipulative techniques to protect their own status in the friendship because they have learned this from their parents. In recent research on social development, such a behavioral pattern is defined as relational aggression (Crick et al., 1999; Underwood, Galen, & Paquette, 2001). Relational aggression pertains to behaviors that inflict social harm on others and this type of aggression is used by children who intend to damage their peers' relationships by such means as social exclusion, gossiping, and threatening to end the friendship. It was found that both maternal and paternal psychological control (as indexed by parent and adolescent reports) predicted higher use of adolescent relational aggression (as indexed by adolescent self-report and a peer nomination instrument). Relational aggression, in turn, predicted higher levels of loneliness and lower levels of friendship quality. Any direct association between psychological control and these social outcomes could be fully accounted for by relational aggression. It appears therefore that adolescents apply the internally controlling, manipulative, and conditionally approving tactics experienced in the relationship with their parents in their own interpersonal functioning, thereby putting themselves at risk for maladaptive social development.

One may wonder how the mediating process described in the preceding paragraph (i.e., relational aggression) relates to the mediating process described earlier between psychological control and adolescent internalizing problems (i.e., maladaptive perfectionism). Past research has shown that intra-individual perfectionism is positively related to perfectionism directed towards others. Hewitt and Flett (1991), for instance, distinguished between self-oriented perfectionism (i.e., setting high standards for one self) and other-oriented perfectionism (i.e., setting high standards for others) and found that both

dimensions of perfectionism are typically positively related. Other studies have found that perfectionists tend to engage in controlling, hostile, and manipulative interpersonal styles (see Habke & Flynn, 2002 for an overview). Most likely then, perfectionists will not only have high expectations for others, but also express these expectations towards others in an intrusive and manipulative fashion. The possibility thus exists that adolescents who were raised in psychologically controlling homes and who subsequently developed a perfectionist orientation towards themselves, hold unrealistically high expectations for others as well. Most likely, they convey these expectations in a guilt-inducing, conditionally approving, and thus relationally aggressive fashion, which in turn undermines the quality of their interpersonal relationships. Future research may address this full sequence (i.e., psychological control > self-oriented perfectionism > other-oriented perfectionism > relational aggression > social maladjustment).

Chapter 11 examined the combined and interactive influence of three direct parental peer management strategies (i.e., guiding, prohibiting, and supporting) and a general measure of parental psychological control in relation to three interpersonal outcomes of adolescents, that is, affiliation with a deviant friend, affiliation with a deviant group, and a positive sense of group belongingness. Prohibiting – a peer management strategy which pertains to the extent to which parents do not allow their adolescents to associate with particular peers -- has been found in past research to be associated with more instead of less peer deviant associations (e.g., Mounts, 2002). In Chapter 11, we reasoned that prohibiting yields such undesired effects, because adolescents experience their parents as intrusive and as interfering in their personal life world. In favor of this interpretation, it was found that the direct effect of prohibiting on peer group deviant behavior and best friend deviant behavior substantially dropped in magnitude after entering psychological control (as a proxy of perceived intrusiveness) in the regression equation, suggesting that prohibiting may relate to a maladaptive type of peer associations because prohibiting is experienced as psychologically controlling. Thus, instead of eliciting compliance, prohibiting seemed to provoke rebellion and defiance, presumably because prohibiting fails to facilitate the internalization process.

A second interesting finding in Chapter 11 was the observation that guiding – another peer management strategy pertaining to parental communication about their expectations for friendships – interacted with ratings of paternal psychological control in the prediction of group belongingness. It was found that parental guidance of adolescents' peer friendships negatively predicted a sense of belongingness to a peer group when this guidance was provided in a psychologically controlling fashion. Presumably, parents who provide guidance or structure in an intrusive fashion are perceived as interfering in friendships, a domain which is considered highly personal by adolescents (Smetana & Daddis, 2002). Although parents may intend to decrease deviant peer relationships through their controlling parenting, it seems to provoke an opposite reaction: adolescents seem to react in a rebellious (rather than compliant) fashion when their parents intrude into their personal life spheres.

Together then, the findings of Chapter 11 suggest that any parental strategy to regulate children's social relationships that is, on average, experienced as psychologically controlling (i.e., prohibiting) or that is communicated in a psychologically controlling fashion (i.e., guiding) will yield less than optimal outcomes for adolescents' social development. In response to such intrusive parental strategies, adolescents appear to become more susceptible to deviant peer influences and to fail to experience a sense of belongingness to a group of friends or peers.

Conclusion

The results of Chapter 10 and 11 are in line with the limited body of studies which has demonstrated the adverse interpersonal outcomes associated with a psychologically controlling parenting style. The findings suggest that the negative influence of psychological control on adolescent social functioning may occur through two different channels that reflect the two types of parental influences distinguished by Ladd and Pettit (2002). First, psychological control may indirectly affect the quality of adolescents' social relationships by modeling adolescents' interpersonal style. Second, psychological control may determine the effectiveness of parents' direct attempts to regulate their children's peer relationships and friendships.

FUTURE DIRECTIONS AND CONCLUSION

In the final section of this introductory chapter we will outline a number of directions for future research that seem important to me in order to gain a further and deeper understanding of the dynamics and processes involved in psychologically controlling socialization. These directions for future research mainly center around three issues, that is, (a) mediators of the association between psychological control and adolescent psychosocial well-being, (b) antecedents of psychological control, and (c) the nature of the association between psychological control and externalizing problems.

Mediators of the Link between Psychological Control and Well-Being

Broadening the range of mediators

Within the framework of the present dissertation, a number of mediating processes between psychological control and adolescent psychosocial functioning have been examined, including maladaptive perfectionism, (lack of) autonomy, and relational aggression. However, this is by no means an exhaustive list of mediators and future research may examine the role of other intervening variables such as emotional regulation, coping, and processes of identity formation.

For instance, adolescents of psychologically controlling parents might experience an inner obligation to suppress their negative emotions (Kim, Deci, & Zuckerman, 2002), because an open communication about their negative emotional states might signal a weak personality. Hence, they would suppress their negative emotions to maintain the interest and love of their parents. In the long run, this suppression of emotions may backfire at the cost of significant emotional problems (Ryan et al., in press). In a similar vein, children of psychologically controlling parents might engage in avoidance coping mechanisms (Carver & Scheier, 1998) to deal with stressful life events: they would take mental distance from stressful events, because they do not experience the freedom to express themselves. Such a lack of open and flexible integration of emotional experiences and the use of avoidance coping

mechanisms might explain why psychological control contributes to lower well-being.

Another possibility is that psychological control hinders the formation of a stable and secure sense of identity. As shown by Luyckx, Soenens, et al. (in press), psychological control is related to significant impairments in adolescents' ability to make self-endorsed commitments. Given that other research has shown that a sustained lack of commitments represents a strong vulnerability factor to maladjustment (Berzonsky & Adams, 1999; Luyckx, Goossens, Soenens, & Beyers, in press; Marcia, 1980), adolescents' commitment-making capacities may also represent a likely candidate to mediate associations between psychological control and psychosocial functioning.

In our view, it will be important for future research addressing additional mediating processes to evaluate these new mediators against the background of the mediating processes that have already been documented. To illustrate, none of the additional mediators suggested in the preceding paragraphs are independent from the mediators that were suggested in this dissertation. It can be anticipated, for instance, that maladaptive perfectionists experience difficulties making commitments because they keep on doubting about the right choice and because they profoundly worry about making less than perfect choices. Adolescents' commitment-making ability may thus represent yet another step in the sequence of events that has already been documented, such that psychological control predicts perfectionism which in turn relates to lower levels of commitment-making. Commitment-making in turn may at least partially explain the effect of perfectionism on adolescent adjustment.

Mediators of the effect of adolescent adjustment on psychological control

Although we have gained much knowledge about the process through which psychological control affects adolescent distress, much less is known about the reverse link, that is, the association between adolescent distress and parents' intrusive reaction upon that distress. As shown in Chapter 7, psychological control appears to be involved in a negative vicious cycle, so that psychological control produces adolescent depression over time, which, in turn, further increases parents' psychological control. Psychologically controlling parents thus seem to react to their depressive adolescents by further

increasing their level of psychological control. An important avenue for future research therefore is to examine the dynamic processes that may account for this reaction. Why would parents increase rather than decrease their use of psychological control in response to the observation that their child is experiencing distress?

One possibility is that parents may be genuinely concerned about their child's feelings and development in general. This concern, however, may turn into anxiety and worry when the child remains distressed over a longer period of time. Driven by anxiety and worry, parents are most likely to respond in an overreactive manner, so that the parents' response, although well-meant may be experienced as intrusive and overcontrolling by the adolescent (Dix, 1991; Kerr & Stattin, 2003).

However, when parents react to signals of distress in their adolescent by increasing their level of psychological control, this may not always represent a well-meant expression of their concern for the adolescent's well-being. Another possibility is that parents of depressed adolescents would feel that their child fails to meet parental expectations, a feeling which is most likely to occur in perfectionist parents (Flett et al., 2002). In the latter case, parents' increasing use of psychological control is driven by self-centered motives (i.e., whether or not the parents' own expectations are met) rather than by child-centered concerns. An important aim for future research is to determine the type of affects and motives (e.g., well-meant and child-centered versus self-centered) that mediates the effect of child distress on psychological control.

To the extent that parents behave intrusively on the basis of self-centered concerns, we further suggest that they may engage in a set of specific negative *attribution processes* that contribute to a sustained application of psychological control. This hypothesis is in line with numerous studies which have shown that maladaptive and hostile attribution processes are linked to the use of harsh and controlling parenting (Dix, 1991, 1993; Miller, 1995; Nix et al., 1999).

As reviewed above, parents might observe that the use of psychologically controlling strategies yields some benefits, in the sense that it produces rote learning (Vansteenkiste, Simons, Lens, et al.,

2005) and short-term persistence at the requested behavior (Assor et al., 2004; Vansteenkiste, Simons, Braet et al., 2005). Psychologically controlling parents might ascribe these positive changes in their children to the fact that their parenting strategies were effective. Hence, the child's initial success is attributed to causes that are external to the child (i.e., the parents' communication style).

However, when psychologically controlling parents subsequently notice that their child did not perform as well as anticipated in school, failed to maintain the initially performed behavior or even displays signs of depression and maladjustment, they might attribute these failures to stable and dispositional features of the child such as laziness, lack of motivation, or the child's weak personality. In the parents' view, children are not meeting their expectations, in spite of the parents' successful initial attempts to motivate the child. Hence, parents – and parents who hold high perfectionist standards for their children in particular -- may shift from an external attribution to an internal and stable attribution. Most likely, parents who attribute their children's failure and maladjustment in this fashion will not communicate with their children in an open and constructive fashion, but will make their children aware of their problems through guilt-trips and love withdrawal (Dix, 1991). This continued use of psychological control is likely to further exacerbate rather than solve the child's problems, so that the parents' negative attributions of the child are also further confirmed.

These attributions have the "benefit" for parents that they do not have to reconsider their own motivational and parenting strategies. Because the child's maladjustment is viewed as the consequence of stable characteristics of the child, parents do not need to question the communication style that they use. The self-protective nature of these negative attributions is another reason why psychologically controlling parents are likely to persist in their intrusive behaviors towards the child rather than change their parenting approach towards the child. Future research might want to examine whether psychologically controlling parents effectively get stuck in a self-sustaining negative cycle, and whether these self-protective attributions from the side of psychologically controlling agents are (partially) responsible for the perpetuation of the negative vicious cycle described in Chapter 7.

Differentiating among types of psychological control

Another way to gain more insight in the specific psychological processes that account for the effects of psychological control is to differentiate among more specific types of psychological control. As reported in Chapter 5 and 6 of this dissertation, maladaptive perfectionism and separation anxiety have been identified as two distinct sources of parental use of psychological control. This finding is in keeping with the theory of Blatt (2004), which has distinguished between self-criticism (akin to perfectionism) and dependency (akin to separation anxiety) as distinct vulnerabilities to depression. Against the background of this apparent convergence, we propose that self-criticism and dependency constitute two distinct impairments in parents' psychological functioning that may predispose them to the use of two qualitatively different types of psychological control. Although both self-critical and dependent parents can be expected to intrude upon their child's psychological world and to use internally controlling tactics (see Chapter 5 and 6), it is proposed herein that they will express their use of control in a different fashion and in response to different events, and that different processes may account for their effects on adolescent psychosocial functioning.

As self-critical parents set high performance standards for themselves and engage in negative self-evaluations when they fail to meet their standards, they can be expected to set stern achievement standards for their children as well. To the extent that their children fail to meet these standards, self-critical parents are likely to use intrusively controlling tactics aimed at pressuring the child to comply with the parent's achievement standards, a type of parental control that we will refer to as achievement-oriented psychological control (APC). APC pertains to parents who express disappointment with weak performance by the child and who induce shame and guilt over experiences of failure. Conversely, they only show their care and appreciation for the child (e.g., pride) when the child meets parental demands and standards for perfection. As parents high on APC are hooked on their children's performance, their use of APC is most likely triggered in achievement situations and by events involving performance-related standards (e.g., in sports or academics).

In contrast, dependent parents are highly anxious about separation from significant others in general and from their children in particular. When confronted with issues of independence and separation in the parent-child relationship, dependent parents are likely to assert control (e.g., guilt induction) in order to foster the child's dependency. We will refer to this type of parental control as separation-anxious psychological control (SPC). Parents high on SPC most likely manipulate the attachment bond with their children in such a way that the child's need for closeness with the parent is pitted against the child's need for autonomy. Parents high on SPC may induce guilt when their child expands his or her social world beyond the family. Conversely, these parents would show care and affect for a child as long as he or she remains within family boundaries and exclusively relies on the parent. Interpersonal events and events involving issues of parent-child distancing (e.g., hanging out with friends or relying on peers for advice) in particular would trigger the use of SPC.

Not only may the distinction between two types of psychological control provide insight in the differential parental origins of psychological control, APC and SPC can also be expected to create a differential vulnerability to adolescent depression. Such a hypothesis is in line with the claim of Blatt and Homann (1992) that self-critical and dependent individuals are characterized by a markedly different developmental history. On the one hand, s*elf-critical individuals* typically experience their parents' love as contingent upon meeting strict parental standards and demands for achievement. These children are criticized for attaining less than perfect achievement and, hence, experience high levels of parental APC. As children internalize this parental criticism and conditional regard, they develop a self-critical orientation which is characterized by engagement in harsh and relentless self-evaluation and by attacks of oneself with intense feelings of guilt, shame, and worthlessness (Blatt & Homann, 1992). On the other hand, according to Blatt and Homann (1992), *dependency* develops within families in which parents manipulate the bond with the child and use their love to control the child. Love and acceptance are made contingent on undue loyalty, excessive conformity, and dependency. As a consequence of such parental use of SPC, the child experiences insecurity about the parents' care, resulting in a dependent

orientation which is characterized by fears about loss and abandonment and by a clinging and demanding interpersonal style. Despite their differential origins, both self-criticism / perfectionism and dependency would make adolescents vulnerable to internalizing problems in general and depression in particular. In sum, it is hypothesized that the effects of APC and SPC on adolescent depressive feelings are differentially mediated. Whereas any effect of APC on depression would be accounted for by adolescent self-criticism, any effect of SPC on depression would be accounted for by adolescent dependency. This hypothesized differential mediation model is depicted in Figure 1.

Preliminary evidence for the hypothesis of a differentiation between types of psychological control and for the differential mediation of these types by self-criticism and dependency has been provided by Soenens, Vansteenkiste, Luyten, and Goossens (2006). They developed a new questionnaire tapping the two proposed types of psychological control (i.e., APC and SPC). Sample items for APC are, “My mother is less friendly to me if I perform less than perfectly” and “My father only respects me if I am the best at everything”. Sample items for SPC are, “I often feel that my mother only loves me if I rely on her for advice about decisions” and “Sometimes my father says that he is sad because I no longer like to do the things that we used to enjoy together”. The questionnaire was administered to a sample of 353 first-year undergraduate students. Exploratory and confirmatory factor analyses on this questionnaire clearly pointed to a two-factor solution, with one factor being defined by APC-items and a second factor being defined by SPC-items. Items with cross-loadings or with a non-significant loading were removed from the questionnaire, resulting in an 8-item scale for APC and a 7-item scale for SPC. The distinction between APC and SPC was externally validated through correlations with a number of related family functioning and parenting scales, including Barber’s (1996) general psychological control scale (i.e., the PCS-YSR). Whereas both APC and SPC were positively related to the PCS-YSR (controlling for their shared variance), the correlation with APC (r = .58; p < .001 for maternal ratings and r = .60; p < .001 for paternal ratings) was more pronounced than the correlation with SPC (r = .26; p < .001 for maternal ratings and r = .30; p < .001 for paternal ratings). This suggests that the most commonly used measure

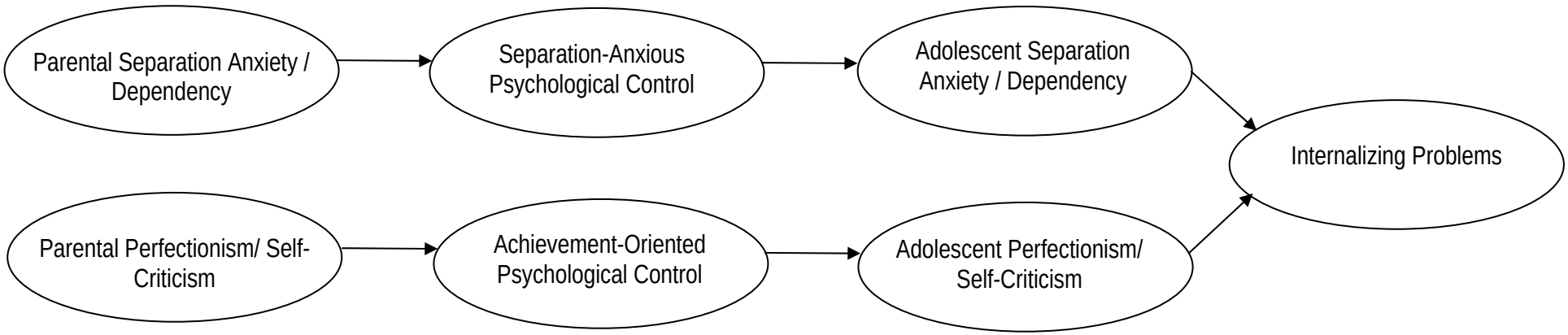
of psychological control in the parenting literature primarily taps a type of intrusive parenting aimed at pressuring the child to strive for perfect achievements (i.e., APC) rather than aimed at pressuring the child to remain within close physical and emotional distance to the parent (i.e., SPC).

Although both APC and SPC were positively correlated with psychological control and negatively correlated with measures of autonomy support, they showed differential associations with a number of other measures. Notably and in line with expectations, APC was uniquely associated with a measure of a perfectionist family climate and SPC was uniquely associated with a measure of family enmeshment.

Apart from validating the distinction between APC and SPC, Soenens, Vansteenkiste, Luyten, et al. (2006) also tested a structural model including APC and SPC as simultaneous predictors of adolescent self-criticism and dependency (as assessed with Blatt et al.'s, 1976, Depressive Experiences Questionnaire). APC was found to be the strongest predictor of self-criticism and SPC was found to be a unique predictor of dependency. These findings support the idea that different types of psychological control relate to different vulnerabilities to maladjustment. Further research needs to examine whether these vulnerabilities actually differentially mediate the relations between these types of psychological control and adolescent adjustment in general and internalizing problems in particular (see Figure 1).

Another interesting finding with this new questionnaire pertained to parental gender differences. Whereas mothers were rated as significantly higher on SPC compared to fathers, fathers received significantly higher ratings on APC compared to mothers. This systematic pattern of gender differences contrasts sharply with the lack of parental gender differences typically obtained in research with the general psychological control construct (Barber & Harmon, 2002). However, Barber, Stolz, et al. (2005) already hypothesized that more specific assessments of intrusive control would have gender-differentiated effects. The findings obtained by Soenens, Vansteenkiste, Luyten, et al. (2006) are in line with the latter general idea but also with theory and research suggesting that whereas separation anxiety (e.g., Hock et al., 2001) and dependency (Blatt, 2004) are more typical of females, perfectionism and achievement orientation would be more typical of males (Blatt, 2004).

Figure 1.1 *Hypothesized model of the antecedents and consequences of the types of psychological control.*



An important avenue for future research is to go beyond this observation of mean-level parental gender differences in types of psychological control and to examine whether APC and SPC have a differential predictive value for adolescents' development depending on the gender of parent. Blatt and Homann (1992), for instance, suggested that the pattern of parent-child relations predicting dependency would not only be more typical of mothers but also that the maternal relationship would be more important in the development of dependency than the paternal relationship. Conversely, some findings of this dissertation suggest a somewhat stronger role for fathers compared to mothers in the developmental sequence involving perfectionism. In Chapter 5, for instance, paternal perfectionism was found to be more strongly related to the use of psychological control than maternal perfectionism. Moreover, this study demonstrated a stronger direct linkage between fathers' and daughters' perfectionism than between mothers' and daughters' perfectionism.

To sum up, recent evidence suggests that it may be worthwhile for future research to distinguish among different types of psychological control because this may allow for a more intricate analysis of the specific pathways through which intrusive parenting creates a susceptibility to maladjustment. Such an approach may enable researchers to identify with greater precision the developmental antecedents of psychological control (e.g., in parents' own developmental history) and may allow for a more theory-driven analysis of gender differences in the processes involved in psychologically controlling parenting.

Antecedents of Psychological Control

Intergenerational transmission of psychological control

In line with Belsky's (1984) claim that parents' own developmental history is an important predictor of their parenting style, much research on the origins of parents' rearing style has focused on the quality of parents' own upbringing. This research has primarily focused on overtly negative aspects of parenting style such as authoritarianism, corporal punishment, harshness, or even physical abuse (e.g., Simons, Whitbeck, Conger, & Chyi-In, 1991) and has convincingly shown that such negative

parenting features are transmitted across generations. Research on the intergenerational transmission of internally or psychologically controlling parenting, however, has been largely lacking to date. A notable exception to this pattern is the study of Assor et al. (2004) in which it was shown that mothers who experienced their own parents as conditionally approving held less positive attitudes towards autonomy-supportive parenting and were perceived by their own daughters as using more conditional regard. This is an intriguing finding, as it suggests that mothers who received affection from their own parents on a conditional basis do the same thing towards their daughters, in spite of the fact that the mothers themselves suffered from the conditional regard experienced by their parents. Future research may more systematically examine the possibility that psychologically controlling parenting is transmitted across generations and may attempt to provide some insight in the reasons why this type of parenting is continued by parents despite its negative effects.

One possibility is that parents who were reared in a psychologically controlling environment have developed vulnerable dispositions such as the ones described in Chapter 5 and 6. Indeed, parental dispositions such as perfectionism / self-criticism and dependency / separation anxiety are not assumed to be in-born but to result from socialization processes themselves (e.g., Blatt, 2004). Most likely, perfectionist parents have been reared in an intrusively controlling family climate themselves and the perfectionist orientation resulting from this upbringing may in turn lead them to engage in the same intrusive parenting behaviors that they experienced from their own parents. In other words, across generations, a vicious cycle may develop in which parents perpetuate the negative parenting behaviors of their own parents, thereby burdening their children with a personal vulnerability similar to their own.

Interactions between types of antecedents

As outlined before, theory and research has suggested that antecedents of psychological control may come in three different types, that is, pressures from within, pressures from below, and pressures from above. There is evidence documenting the role of some factors within each of the three classes of antecedents proposed by Belsky (1984) and Grolnick (2003). In our view, however, future research may

benefit from a more comprehensive approach which includes antecedents from each of these classes simultaneously. This would allow investigating how factors from the three levels of influence interact to predict parents' use of psychological control. Most likely, the role of individual-level factors does not operate fully independent from the role of social-structural and child factors.

As an example, parents with a perfectionist orientation (i.e., pressure from within) may more easily perceive their child's performance as poor (i.e., pressure from below) than parents low on perfectionism. In turn, they may be more likely to engage in controlling parenting, not only because they are more critical towards themselves and others in case of failure but also because they are more sensitive to failure-related events. This hypothesis is consistent with recent evidence showing that perfectionists do not only respond to stressors and failure with increased negative affect but also elicit higher levels of perceived stress and failure themselves which, in turn, renders them additionally susceptible to negative affect (e.g., Blatt, 2004).

As another example, a perfectionist parent and a non-perfectionist parent may react differently to economic pressures or pressures within the marital dyad (i.e., pressure from above). Whereas both may become less autonomy supportive and more psychologically controlling confronted with such pressures from above, this may be particularly the case for the perfectionist parent. Compared to a non-perfectionist parent, a perfectionist parent may be more likely to experience financial problems or problems in the marital relationships as evidence of personal failure, which triggers feelings of worthlessness and stress. In response to these increased levels of stress, the interpersonal style of a perfectionist parent toward his children may become increasingly controlling and intrusive.

In sum, consistent with the notion that environmental, personal, and interpersonal factors are interconnected and interact in complex ways to determine human behavior (e.g., Belsky, 1984), future research would do well to further document the interplay between pressures from above, within and below in the development of a psychologically controlling parenting style. Insights from such research could further yield valuable and important information for therapeutic interventions aimed at preventing

parental use of psychological control.

Psychological Control and Externalizing Problems

Dual effects of psychological control: The role of children's temperament

As the relation between psychological control and externalizing problems has been found somewhat less consistently than the association with internalizing problems, it has been suggested that effects on externalizing problems may be more contingent on other aspects of children, parents, or the broader socialization environment (Barber & Harmon, 2002).

One possibility is that the effect of psychological control on externalizing problems depends on the child's personality or temperament (Caspi, 1998; Morris et al., 2002; Prinzie, Onghena, Hellinckx, Grietens, Ghesquière, & Colpin, 2004). This possibility would be consistent with recent research on gene x environment interactions in which it is assumed that children with different temperamental predispositions may respond differently to a given style of parenting (e.g., Collins et al., 2000; O'Connor, Deater-Deckard, Fulker, Rutter, & Plomin, 1998; Reiss, 2005). The distinction made between 'undercontrolled' and 'overcontrolled' personality configurations in recent personality research may be specifically relevant in this context (see Asendorpf, Borkenau, Ostendorf, & van Aken, 2001 for a review). Undercontrolled individuals are low on conscientiousness and are typically prone to acting-out behavior and externalizing problems. In contrast, overcontrolled individuals are introverted, highly conscientious, and mainly vulnerable to internalizing problems.

On the basis of these characteristics, it could be hypothesized that whereas undercontrolled children and adolescents would typically react to parental control and pressure by acting out and by rebelling against parental authority (i.e., the kind of behavior that is predominant in their behavioral repertoire), overcontrolled individuals may respond to pressure in a different fashion. They may be more likely to turn the external pressure inward, thereby slavishly complying with parental authority and behaving on the basis of introjected parental demands. Some preliminary evidence for this type of

interactions between adolescent personality and parenting was found by Prinzie et al. (2004), who showed that children low on conscientiousness (i.e., a defined characteristic of the undercontrolled prototype), when exposed to coercive parenting, showed increased levels of externalizing problems. Similarly, Morris et al. (2002) found that children low on effortful control -- defined as the capacity to inhibit impulsive behavioral responses and to adequately regulate one's behaviors and emotions -- displayed increased externalizing problem behaviors in response to hostile parenting. Further, Dubas, Gerris, Janssens, and Vermulst (2002) showed that undercontrolled adolescents experiencing high levels of restrictive parental control also displayed increased levels of depressed affect and internalizing problems, indicating that undercontrolled adolescents may respond to parental control and coerciveness with both externalizing and internalizing problems.

Additional research is needed, however, to replicate these findings and to assess whether and to what extent psychological control interacts with features of adolescents' personality and temperament to predict externalizing problems.

Interactions between psychological control and behavioral control

Apart from the possibility that the effect of psychological control on externalizing problems depends on child characteristics, future research may more systematically examine the role of psychological control in externalizing problems in conjunction with the role of behavioral control. A number of studies have demonstrated that psychological control and behavioral control interact to predict externalizing problems, such that high levels of behavioral control combined with high levels of psychological control make adolescents particularly vulnerable to externalizing problems (e.g., Caron et al., 2006; Galambos et al., 2003; Gray & Steinberg, 1999). Note that the findings of Chapter 11, as they showed an interaction between parental guiding of peer relationships and psychological control in predicting the quality of adolescents' peer affiliations, are in line with this research. Given these findings, it may be important for future research to simultaneously consider the role of psychological control and behavioral control in relation to externalizing problems rather than focusing on the effect of

psychological control by itself. Specifically, future research may address the question exactly why a combination of high behavivoral control and high psychological control renders adolescents particularly susceptible to conduct problems.

Within SDT, adolescents' degree of internalization of parental rules for appropriate behavior is considered a likely mediator of the effect of parenting on adolescent externalizing problems (Grolnick, 2003; Ryan et al., in press). When parents set limits to the adolescent's behavior or communicate a particular rule for behavior (i.e., behavioral control), adolescents may or may not fully internalize this rule, depending on the extent to which it has been communicated in a (psychologically) controlling fashion or in an autonomy-supportive fashion.

Parents may provide clear expectations and rules for their child's behavior but convey these expectations through intrusive, guilt-inducing, and conditionally approving language. According to SDT (Grolnick, 2003; Reeve, Deci, & Ryan, 2004; Vansteenkiste, Ryan, & Deci, 2004), adolescents are unlikely to fully grasp the importance of the rule and thus to identify with the rule under these circumstances. Instead, they will feel internally pressured to follow this rule, thereby buttressing themselves with feelings of guilt and shame. Although such an introjected regulation of one's behavior may invoke some initial engagement in the behaviors that were requested b the parents (e.g., Assor et al., 2004), it is unlikely to lead to long-term persistence in the desired behavior (e.g., Vansteenkiste, Simons, Braet, et al., 2005). Moreover, as adolescents feel controlled by the parents' intrusive attempts to regulate their behavior, they are likely to develop negative feelings (such as resentment and anger) towards the parents (Assor et al., 2004). Adolescents who regulate their behavior on the basis of harsh parental introjects are thus likely to defy parental authority in the long run, which would result in an increased probability of engaging in undesired and inappropriate behaviors and a decreased probability of engaging in pro-social behaviors.

Parents need not necessarily convey their rules and expectations for behavior in a controlling or pressuring fashion. Parents may provide clear expectations, guidance, and assistance in carrying out

certain behaviors (i.e., high behavioral control) and still provide freedom for choice, voice, and initiative (i.e., high autonomy support or low psychological control). Parents may, for instance, try to arrive at consensually agreed goals and rules for behavior by discussing these together with their children. Under these circumstances, the child is more likely to experience some choice and personal initiative, which increases the probability that the child will stand behind the rule and identify with it. However, even when the option of whether to follow a rule or not cannot be left up to the child, parents may still set a rule in an autonomy-supportive (rather than controlling) fashion by providing a clear rationale for that particular rule. Although the child does not have a choice or does not contribute to the rule, he or she may still personally endorse this rule because he or she is able to identify with the importance of the rule. In sum, providing structure and regulations for behavior (i.e., behavioral control) in an autonomy-supportive fashion is likely to result in higher levels of internalization and autonomy in following the rule. Moreover, a combination of behavioral control and autonomy-support is unlikely to interfere with harmonious, warm, and affectionate parent-child relationships (Grolnick, 2003; Ryan, 1995; Soenens & Vansteenkiste, 2005). As a consequence, it can be expected on the basis of SDT that children of parents who combine high levels of behavioral control with high levels of autonomy-support will refrain from engagement in externalizing problem behaviors and will be more likely to behave in a pro-social manner, both in the short term and in the long term (Grolnick, 2003; Reeve et al., 2004).

Although research has shown that autonomy-supportive parenting fosters internalization processes (Grolnick, 2003; Ryan & Connell, 1989; Soenens & Vansteenkiste, 2005) and that higher levels of internalization of pro-social norms are related to higher frequency of enactment of pro-social behavior (Gagné, 2003; Ryan & Connell, 1989), research has not systematically examined the role of internalization processes in linkages between behavioral control, psychological control, and adolescent externalizing problems. On the basis of the reasoning developed in the preceding paragraphs, it is hypothesized that a combination of high behavioral control and high psychological control relates to more externalizing problems in adolescent because adolescents fail to internalize parental rules for

behavior under these circumstances. In sum, future research examining both psychological control and behavioral control in relation to the quality of the internalization of parental rules for behavior may provide more insight in the processes that link intrusive parenting to externalizing problems.

Conclusion

Since the construct of psychological control was re-introduced to the socialization literature in the 90's, research has systematically demonstrated that this parenting style dimension is related to negative developmental outcomes in children and adolescents. Psychological control does not only make children and adolescents vulnerable to impairments in intra-individual functioning such as low self-esteem, depression, and eating-disordered problems, it also negatively affects their functioning in the broader interpersonal and societal context, as it has been shown to interfere with children's and adolescents' academic and social development and to render them vulnerable to externalizing problems. Moreover, research is increasingly showing that the negative developmental outcomes of psychological control generalize across developmental periods, across (parents' and children's) gender and across different cultural and ethnic backgrounds.

The present dissertation primarily aimed to contribute to the literature on psychological control by providing more insight in the dynamic processes involved (a) in the link between psychological control and adolescent maladjustment and (b) in the origins of parents' use of psychological control. A primary finding of this dissertation is the observation that parents' use of psychological control is closely tied to their own personal functioning. Both parents setting harsh and rigid perfectionist standards to themselves and parents struggling with issues of dependency, loss, and separation engage in high levels of psychological control. This dissertation also revealed at least one pathway through which psychological control in turn renders adolescents vulnerable to impairments in their psychosocial functioning. Adolescents of psychologically controlling parents are characterized by perfectionist, self-derogatory self-representations that relate to a range of internalizing problems, including low self-worth,

depression, and eating disorder symptoms. Moreover, through a relationally aggressive interpersonal style they appear to extend their conditionally approving attitude toward themselves to their social relationships with peers and friends, which ultimately results in feelings of insecurity in friendships and lowered social well-being.

Given the pervasive negative impact of psychological control on children's and adolescents' psychosocial functioning, this parenting dimension deserves particular attention in therapeutic and counseling settings in general and family-based therapeutic interventions in particular. As expressions of psychological control may be less directly visible than expressions of more tangible and manifest types of controlling parenting, detecting problems associated with psychologically controlling may be a difficult and challenging task. However, given that the effects of this subtle, manipulative and intrusive style of parenting appear to be at least as severe and many-branched as the effects of overtly harsh and coercive parenting, it is of particular importance to accurately detect and prevent parents' use of psychological control, for instance by teaching them to use a more autonomy-supportive style of parenting. Future research further exploring the conditions that form a risk factor for the development of psychologically controlling parenting behaviors may significantly increase the effectiveness of therapists' and counselors' attempts to trace and prevent the use of psychological control. Similarly, additional research addressing the psychological dynamics involved in the detrimental impact of psychological control on children's and adolescents' well-being may aid in the treatment of problems that result from intrusive family processes and may, conversely, contribute to the facilitation of children's and psychological and social development.

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