# A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory

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### ABSTRACT

Psychological control refers to manipulative parental behavior that intrudes upon the child's psychological world. During the past decade, socialization research has consistently demonstrated the negative effects of psychologically controlling parenting on children's and adolescents' development. However, there has been relatively little advance in our conceptual understanding of this parenting construct. The present overview aims to enrich the theoretical background of the concept of psychological control by relating it to concepts used in self-determination theory. It is argued that this theoretical background allows for (a) a clearer definition of the concept of psychological control, (b) a more refined understanding of the dynamics involved in psychologically controlling parenting, and (c) a greater insight regarding its generalization across age and cultures. Directions for future research are formulated with respect to each of these three issues.

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## Introduction

Psychological control refers to parenting behaviors that intrude upon children's thoughts and feelings, and has been characterized as used by parents who excessively implement manipulative parenting techniques, such as guilt-induction, shaming, and love withdrawal (Barber, 1996). As psychological control is thought to inhibit children's development of a secure sense of self, it would lead to disturbances in psychosocial functioning (Barber & Harmon, 2002). Although the concept of psychological control had been identified in the 1960s (Schaefer, 1965a), socialization research has only begun to

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systematically examine its role in children's and adolescents' psychosocial functioning since the 1990s (Barber, Olsen, & Shagle, 1994; Steinberg, 1990). As the literature on psychological control is still relatively young, there is room for improvement, particularly at the conceptual level (Barber, Bean, & Erickson, 2002; Steinberg, 2005). Steinberg (2005), for instance, stated that the steady increase in research on psychological control has not been matched with an increase in conceptual clarity of the construct.

This overview article has two primary goals. Our first goal is to expand on the theoretical underpinnings of the construct of psychological control by relating it to concepts and psychological mechanisms drawn from a well-established motivational and socialization theory, namely, self-determination theory (SDT; Deci & Ryan, 2000; Vansteenkiste, Niemiec, & Soenens, in press). Our second goal is to use this theoretical background to propose a number of new insights and future research directions that concern: (a) the conceptualization of psychological control, (b) the dynamics (i.e., antecedents, mechanisms and consequences) involved in psychologically controlling parenting, and (c) its generalization across age and culture. Before touching upon these goals, we first briefly discuss the history of developmental research on psychological control (see also Barber & Harmon, 2002).

## A brief history of research on psychological control

Since the mid-1990s, psychologically controlling parenting has been an important topic on the research agenda of developmental psychologists in general, and of socialization researchers in particular. Psychological control was originally identified by Schaefer (1965a) as a key dimension of the quality of parents' child-rearing styles. On the basis of factor analyses on a wide range of parenting behaviors, Schaefer (1965b) developed the Children's Reports of Parental Behavior Inventory (CRPBI), which consisted of three factors: acceptance vs. rejection, firm control vs. lax control, and psychological autonomy vs. psychological control. According to Schaefer (1965a), psychologically controlling parents were experienced by their children as being intrusive, overprotective, possessive, directive, and controlling through guilt (p. 554). Schaefer (1965a) hypothesized that the covert and intrusive methods used by psychologically controlling parents would hinder the child's development as a person who is separate from the parent and would thus forestall healthy development.

After Schaefer's (1965a) early writings on psychological control, researchers lost sight of the construct for about 25 years. This was mainly due to the fact that typological approaches to parenting behavior prevailed in the socialization literature in the 1970s and 1980s (e.g., Baumrind, 1971; Maccoby & Martin, 1983). As these typological schemes focused on only two broad parenting dimensions (viz., responsiveness and demandingness), the construct of psychological control largely disappeared from the socialization literature. In the early 1990s, attention was re-focused on the construct of psychological control by leading developmental scholars such as Steinberg (1990) and Barber (1996; Barber et al., 1994). Barber (1996) 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" (p. 3299). Specifically, psychological control refers to "parental behaviors that are intrusive and manipulative of children's thoughts, feelings, and attachments to parents" (Barber & Harmon, 2002, p. 15). According to Barber and Harmon, psychological control can be expressed through a variety of parental tactics, including (a) *guilt-induction*, which refers to the use of guilt-inducing strategies to pressure children to comply with a parental request; (b) *contingent love* or *love withdrawal*, where parents make their attention, interest, care, and love contingent upon the children's attainment of parental standards; (c) *instilling anxiety*, which refers to the induction of anxiety to make children comply with parental requests; and (d) *invalidation of the child's perspective*, which pertains to parental constraining of the child's spontaneous expression of thoughts and feelings. These various components of psychological control were found to be strongly positively correlated and were therefore considered as indicators of the higher-order construct of psychological control (Barber, 1996).

Initial theorizing and research on psychological control contrasted the consequences of this parenting style to those associated with behavioral control (Barber, 1996; Steinberg, 1990). *Behavioral control* pertains 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 (Dishion & McMahon, 1998; Stattin & Kerr, 2000). Psychological control was viewed as distinct from behavioral control in that the use of manipulative techniques such as contingent love, shaming, and guilt-induction involved attempts to control the child's *psychological* experiences (e.g., feelings, aspirations, and identity choices) instead of the child's *behavior* (Barber & Harmon, 2002).

According to Barber (1996; Barber & Harmon, 2002), the differentiation between behavioral control and psychological control would allow for a more fine-grained analysis of how parenting affects children's and adolescents' development. Specifically, as behavioral control ideally provides adolescents with a clear set of guidelines for appropriate behavior, this parenting dimension would protect adolescents against externalizing or antisocial behavior. Psychological control, by contrast, was thought to be particularly linked to a vulnerability to internalizing problems because this parenting dimension would interfere with the establishment of a secure, stable, and positive sense of self and thus put adolescents at risk for low self-esteem and depressive symptoms (Barber & Harmon, 2002). In line with these expectations, Barber et al. (1994) found that, when entering behavioral control and psychological control as simultaneous predictors of adolescent problem behaviors, behavioral control was uniquely negatively predictive of externalizing problems, and psychological control was uniquely positively predictive of internalizing problems. Some subsequent studies found that psychological control was positively related to externalizing problems as well (e.g., Barber, 1996; Conger, Conger, & Scaramella, 1997; de Kemp, Scholte, Overbeek, & Engels, 2006; Herman, Dornbusch, Herron, & Herting, 1997; Rogers, Buchanan, & Winchell, 2003), although other studies did not confirm this (Gray & Steinberg, 1999). The positive relation of psychological control to internalizing problems appeared more reliable, as this relation has been replicated in dozens of studies, even when controlling for the effects of other parenting dimensions, such as support and behavioral control (Barber, Stolz, & Olsen, 2005; Garber, Robinson, & Valentiner, 1997; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005). It is important to note that research on psychological control and problem behaviors focused almost exclusively on adolescents. Only recently, research has begun to examine psychological control in samples of younger children (e.g., Verschueren, Dossche, Marcoen, Bakermans-Kranenburg, & Mahieu, 2006).

This brief historical overview shows that research on psychological control has developed mainly from a bottom-up (i.e., inductive) approach. The construct of psychological control was discovered by early socialization researchers, such as Schaefer (1965a), who developed empirically driven typologies of parenting behavior through large-scale factor analyses. Although this predominantly inductive approach to the study of psychological control yielded numerous important insights in the meaning and consequences of psychological control, it has been argued that a top-down or relatively more theory-driven approach may yield additional insights in the processes involved in psychologically controlling parenting (Steinberg, 2005). The aim of the current contribution is to relate the construct of psychological control to concepts used in SDT (Deci & Ryan, 2000), which considers issues of control and autonomy as paramount to individuals' well-being and adjustment. It is argued that an integration of findings from the literature on psychological control with concepts from SDT may yield new insights and may provide a background to formulate directions for future research.

## Self-determination theory (SDT)

SDT (Deci & Ryan, 1985, 2000) is a broad-based social theory on motivation and personality that has been under development during the past 35 years. Central to SDT is the concept of autonomy, or self-determination, which is viewed as a universally significant human capacity to act in a volitional manner. According to SDT, individuals have an innate propensity for growth and integration. One visible and frequently examined manifestation of this growth tendency is intrinsic motivation, that is, the tendency to spontaneously explore one's environment, to be curious, and to pursue activities that inherently provide challenge and satisfaction. Not all human activities are inherently enjoyable and interesting, however. Still, even nonintrinsically motivated activities can come with a sense of autonomy and volition if they have been internalized. Much like other developmental theories on socialization (e.g., Grusec & Goodnow, 1994; Hoffman, 1970; Kochanska & Aksan, 2006; Maccoby & Martin,

1983; Shafer, 1968), SDT assumes that the process of internalization is central to personality development and to individuals' adjustment. In SDT, internalization is defined as "a process in which children progressively integrate societal values and proscriptions into a coherent sense of self" (Grolnick, Deci, & Ryan, 1997). The ideal outcome of the internalization process is not just that children have swallowed or literally taken in parental and societal regulations and values but that they have fully endorsed those regulations and values such that they experience them as their own (Grolnick et al., 1997; Joussemet, Landry, & Koestner, 2008). In SDT, both intrinsically motivated and well-internalized activities are said to be autonomously regulated whereas activities that have been partially internalized or not internalized at all are said to be regulated by controlled motives. The central distinction between autonomous and controlled behavioral regulation (Deci & Ryan, 2000) and the hypothesized impact of socialization (including psychological control) on these types of regulation is outlined in greater detail in the following paragraphs.

*Autonomous and controlled regulations*

Autonomy or self-determination within SDT concerns a sense of volition or willingness when engaging in a task (Deci & Ryan, 2000; Vansteenkiste, Ryan, & Deci, 2008). Autonomously regulated behaviors are behaviors that a person willingly endorses and that reflect a person's abiding needs and values. Two different types of autonomous motivation are distinguished, namely *intrinsic motivation* and *well-internalized extrinsic motivation* (i.e., identification and integration). With intrinsic motivation, people naturally follow their interests and engage in an activity out of pleasure and spontaneous curiosity. Although the concept of intrinsic motivation initially received most attention within SDT (Deci & Ryan, 1985), more recent developments in the theory acknowledge the possibility that, even in the absence of spontaneous enjoyment with an activity, people can function in an autonomous fashion (Ryan & Connell, 1989). Specifically, even non-interesting activities, values, and regulations can be assimilated into people's sense of self through a process of internalization. Specifically, with well-internalized extrinsic motivation, individuals perform the behavior because it serves a personally important value. When people accept and personally endorse a behavior or value, they are said to wholeheartedly identify with this behavior or value. Ideally, one's identifications are assimilated to the self, such that they are experienced as a coherent set of regulations rather than as conflicting and antithetical. To the extent that individuals' regulations are brought in alignment with the self, individuals are said to function in an integrated manner. Regardless of whether people engage in a behavior because they find it interesting (i.e., intrinsic motivation) or because they perceive it as personally meaningful (i.e., identification) and congruent with their other values and goals (i.e., integration), they will perform the behavior in a willing or autonomous fashion. Therefore, intrinsic and internalized motives are both considered as expressions of autonomous motivation.

In contrast to autonomous motivation, controlled motivation refers to the enactment of behavior out of pressure and obligation. With 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 outside or from inside the person (Deci & Ryan, 2000). With external pressure, individuals' behavior is controlled by external factors such as controlling reward contingencies, deadlines, or pressuring expectations from others. This type of regulation is labeled external regulation because individuals' behavior is regulated by forces external to the individual. However, pressure can also reside within the person, as when individuals engage in behaviors to obtain a sense of worth or self-aggrandizement or to avoid feelings of guilt, shame, and self-criticism. This type of regulation is labeled introjection because individuals are now applying pressuring forces – that used to be applied by external agents – to themselves. Although the behavioral regulation has been taken in, one's behavior is still not fully accepted as one's own and is still emitted with a sense of resistance, inner conflict, and anxiety. Introjection thus refers to a process where individuals literally swallow or take in a request or value but do not identify with it (Assor, Vansteenkiste, & Kaplan, 2009). As external and introjected regulation both involve a sense of pressure and coercion, they represent instances of a controlled motivation (Ryan, Deci, Grolnick, & La Guardia, 2006; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005).

Within SDT, autonomous regulation is hypothesized to foster optimal behavioral development and well-being, whereas controlled regulations would forestall psychosocial adjustment and even create a

vulnerability to maladjustment and psychopathology (Deci & Ryan, 2000). There is abundant evidence supporting this hypothesis in a variety of life domains (Grolnick & Ryan, 1989; Ryan & Connell, 1989; Ryan et al., 2006). Importantly, the beneficial effects of autonomous, relative to controlled, motives have been consistently shown in nations across the globe, ranging in cultural background from highly individualistic to highly collectivistic (Chirkov & Ryan, 2001; Vansteenkiste, Zhou, Lens, & Soenens, 2005).

*Autonomy-supportive, controlling, and structuring social environments*

*Autonomy-supportive vs. controlling socialization*

Essential to the topic of this paper, SDT assumes that the social environment (including parents' rearing style) plays a substantial role in fostering or detracting from optimal (i.e., autonomous rather than controlled) regulation of behavior (Deci, Eghrari, Patrick, & Leone, 1994; Grolnick et al., 1997). Both intrinsic motivation and the process of internalization would be nurtured by autonomy-supportive conditions, that is, conditions supporting individuals' self-initiation and psychological freedom. Specifically, within SDT, autonomy-supportive socializing agents are characterized by the provision of a desired amount of choice, the acknowledgment of children's perspectives (i.e., a child-centered attitude), and the provision of a meaningful rationale when choice is constrained (Deci et al., 1994). Conversely, controlling socialization agents would undermine individuals' propensity for autonomous regulation and would instead prompt more controlled ways of regulating behavior, as they pressure individuals to think, behave, or feel in particular ways. In line with this, both experimental (Deci et al., 1994; Koestner, Ryan, Bernieri, & Holt, 1984; Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004) and correlational (Grolnick & Ryan, 1989; Niemiec et al., 2006) studies have shown that autonomy-supportive social contexts (including parents) contribute to intrinsic motivation, internalization, and adjustment, whereas controlling environments are associated with a lack of integrity and maladjustment.

As psychological control represents an instance of controlling socialization, it is instructive to discuss SDT's perspective on controlling socialization and parenting in greater detail. In a controlling family environment, children will feel like they have no choice but to think or feel in ways that are dictated by socializing agents. Further, in SDT it is argued that controlling socialization can be either externally controlling or internally controlling (Plant & Ryan, 1985; Ryan, 1982; Vansteenkiste, Simons, et al., 2005). Externally controlling events pressure individuals by relying on tangible external contingencies such as deadlines, surveillance, punishments, and rewards . Under externally controlling conditions, individuals feel pressured to meet requirements imposed from outside the person. For example, externally controlling parenting would result in thoughts and feelings such as "I have to do this because others will punish me otherwise". In terms of the different types of regulation discussed earlier, externally controlling events would activate primarily external regulation.

In addition to externally controlling contingencies, socialization agents and parents may also prompt internal contingencies in children (Assor, Roth, & Deci, 2004; Deci & Ryan, 1995; Vansteenkiste, Simons, et al., 2005). Through the use of guilt-induction, shaming or love withdrawal, parents activate the internal pressures that reside in children's functioning and that have the potential to regulate behavior. For example, thoughts and feelings such as "I have to do this to avoid feeling guilty about myself or to feel like a good person" reflect an introjected regulation that is likely to arise in an internally controlling environment. Children who experience their parents as internally controlling would thus feel an internal compulsion to engage in the requested behavior, while simultaneously wanting to avoid the behavior all together. Such an internally conflicting (and hence controlled) regulation is hypothesized to create a vulnerability to maladaptive patterns of development (Ryan, 1993; Ryan et al., 2006). Parental psychological control shares many features with the concept of controlling parenting and with the concept of internally controlling parenting in particular.

*Structure*

Apart from autonomy-support and control, structure has been forwarded as another important feature of socialization agents' interpersonal style within SDT (Grolnick & Ryan, 1989; Reeve, 2002). Structure refers to the communication of clear and consistent guidelines and expectations for children

and can be contrasted with a chaotic parenting environment. Parents who score high on structure introduce clear rules, delineate the consequences of not following the rules, and follow through when rules are transgressed (Grolnick et al., 1997). Structure also involves the provision of help when children engage in a task or make a decision, the communication of informational (i.e., competence-relevant) feedback, and an attitude expressing confidence in the child's ability to perform and behave well (Reeve, 2002). As such, structure provides children with a sense of predictability and with a sense of personal efficacy to meet challenges and to competently execute instrumental actions.

Importantly, structure is considered to be relatively orthogonal with the extent to which socialization figures are autonomy-supportive or controlling (Reeve, 2002). While communicating rules and supporting decision-making (i.e., providing structure), some parents seek their children's input whenever possible, and refer to a meaningful rationale when the provision of choice is not possible. In contrast, other parents impose rules and assist in an overprotective fashion, such that children feel compelled to follow the rules or to listen to their parents' advice. Whereas the former parents provide structure in an autonomy-supportive fashion, the latter provide structure in a controlling fashion. Depending on whether structure is combined with autonomy-support or control, the developmental outcomes of structure would differ, with more beneficial outcomes occurring under autonomy-supportive conditions (Reeve, 2002; Sierens, Vansteenkiste, Goossens, Soenens, & Dochy, 2009). As will be argued later, the distinction between control and structure is highly relevant to the distinction between parental psychological control and behavioral control.

*Need satisfaction*

Interestingly, SDT also takes a clear position regarding the underlying mechanisms that explain the impact of controlling socialization on individuals' controlled (vs. autonomous) regulation. Specifically, controlling parenting is said to promote controlled regulation, and thus to hinder an autonomous regulation, because it frustrates individuals' basic psychological needs (Grolnick, 2003; Ryan et al., 2006). For parsimony, SDT distinguishes three basic psychological needs that are considered as "nutriments or conditions that are essential to an entity's growth" (Ryan, 1995, p. 410). First, the need for autonomy implies that people have a natural desire to experience their behavior as freely chosen and volitional. Second, the need for relatedness implies that people want to care for others and to feel cared for by them. Third, the need for competence refers to the desire to feel effective and skillful in the activities one undertakes. Several studies in various domains (e.g., education, development, sport, work, and therapy) have demonstrated that basic need satisfaction promotes various positive outcomes, such as well-being, performance and persistence, and prevents negative outcomes, such as ill-being and drop-out (e.g., Sheldon, Elliot, Kim, & Kasser, 2001). We argue that the effects of psychological control can be understood and parsimoniously summarized through the concept of basic need satisfaction.

## Towards an integration between research on psychological control and SDT

By relating parental psychological control to concepts from the framework of SDT, we believe that some of the existing ambiguities and controversies in the literature on psychological control can be reconsidered. Specifically, we will present a number of new insights in response to seven questions that concern three basic issues, specifically, (a) the conceptualization of psychological control and its relation to other parenting dimensions (Questions 1–3), (b) the understanding of the dynamics (i.e., antecedents, mechanisms, and consequences) involved in psychological control (Questions 4–5), and (c) the generalization and manifestation of psychological control across age and culture (Questions 6–7). We also provide a number of directions for future research related to each of these issues.

*Conceptualizing parental psychological control*

Developmental research has typically examined psychological control in relative isolation from other relevant parenting constructs. In this respect, at least three conceptual issues deserve further clarification. First, besides psychologically controlling parenting, there are other ways in which parents can pressure their children. The socialization literature is replete with concepts that, to varying

degrees, reflect controlling parenting (e.g., harsh parenting) and an important question is how psychological control relates to these other instances of controlling parenting. Second, although psychological control has been contrasted with parental autonomy since the pioneering work of Schaefer (1965a), there is an ongoing debate as to whether psychological control and autonomy-support represent incompatible or independent parenting dimensions (e.g., Silk, Morris, Kanaya, & Steinberg, 2003). Third, although there is consensus about the utility of distinguishing between psychological control and behavioral control, the exact nature of this distinction is less clear (e.g., Wang, Pomerantz, & Chen, 2007). We believe that, by locating the concept of psychological control within the SDT framework, the relation between psychological control and these other parenting constructs will be further clarified.

1. *How does psychological control relate to other types of controlling parenting?*

As outlined before, psychological control is characteristic of parents who are non-responsive to their children's needs and who pressure their children through a variety of intrusive and autonomy-inhibiting socialization techniques (Barber, 1996). Apart from psychological control, socialization scholars have introduced many other parenting constructs that reflect a controlling and pressuring parenting style, including parental authoritarianism (Baumrind, 1971; Maccoby & Martin, 1983), parental harshness (Simons, Whitbeck, Conger, & Wu, 1991), power assertion (Hoffman, 1970), physical/corporal punishment (Baumrind, 1978; Gershoff, 2002), and verbal hostility (Nelson & Crick, 2002). Common to these parenting attitudes and strategies is that they involve socialization pressure and a violation of the child's sense of autonomy. Accordingly, one may wonder how psychological control relates to these other conceptualizations of controlling parenting and, more importantly, what features distinguish psychological control from other expressions of controlling parenting. The distinction made within SDT between externally and internally controlling types of socialization pressure is, in our view, relevant in this context because psychological control appears to involve *primarily* (yet not exclusively) internally controlling parenting tactics. As such, psychological control can be distinguished from parenting pressure that is more externally controlling in nature, such as (threats of) physical punishment, (threats of) taking away privileges, pressuring deadlines, use of tangible rewards, and controlling language, directives, and commands.

*Distinguishing between internally and externally controlling parenting*

As outlined earlier, SDT distinguishes between controlling parenting strategies that are aimed at coercing and controlling the children with external contingencies and those that are intended to get the children to pressure, coerce, and control themselves. One important difference between both types of controlling parenting is that, whereas externally controlling strategies will necessarily be provided in an open and overt fashion (e.g., shouting, hitting, or rewarding), this is not necessarily the case for internally (psychologically) controlling parenting. To illustrate, when a parent threatens to take away certain privileges unless the child has completed his or her homework, the contingency between the child's behavior and the punishment is obvious. However, when a child misbehaves, a parent can display disappointment through subtle, non-verbal cues. The latter internally controlling strategy is more covert and insidious. Internally controlling strategies can, however, also be communicated in an overt way, for instance, when a parent verbally expresses his/her child disappointment with the child's misconduct.

We would like to note here that, although the distinction between internally and externally controlling parenting seems straightforward, a number of factors are likely to affect whether parental control is experienced as externally or internally controlling. Research has shown that situational factors and child characteristics (e.g., temperament, age, gender), have an impact on how parenting behaviors are interpreted (see Grusec & Davidov, 2007; Grusec & Goodnow, 1994 for overviews). Such factors may also determine whether and to what extent parental behaviors are experienced as internally or externally controlling. Although a number of factors may complicate and affect the experience of internally and externally controlling parenting, we argue that some parenting behaviors are, *on average*, more likely to be experienced as instances of internally controlling parenting (e.g., communication of disappointment) whereas other behaviors are more likely to be experienced as instances of externally controlling parenting (e.g., withdrawal of privileges). In line with this, SDT-based research is increasingly providing empirical support for distinction between both types of controlling parenting (e.g., Vansteenkiste, Simons, et al., 2005).

*Applying the distinction between internally and externally controlling parenting to psychological control*

As defined by Barber (1996; Barber et al., 1994), psychologically controlling parenting appeals primarily to forces and regulations that reside *within* the child, such as when parents activate feelings of shame and guilt. The idea that psychologically controlling parenting is similar to the use of internally controlling strategies is reflected in the most commonly used measure of parental psychological control, that is, the Psychological Control Scale–Youth Self-Report (PCS–YSR; Barber, 1996). This widely used and validated scale contains items that reflect parental invalidation of the child's feelings and perspective (e.g., "My mother/father changes the subject, whenever I have something to say"), guilt-induction/shaming (e.g., "My mother/father blames me for other family members' problems"), and love withdrawal or manipulation of the attachment bond (e.g., "My mother/father is less friendly with me if I do not see things her/his way"). Together then, the parenting strategies that are most commonly forwarded as defining expressions of psychological control (e.g., love withdrawal, guilt-induction, shaming, and instilling anxiety) map well onto the concept of internally controlling parenting.

However, according to Barber (1996; Barber & Harmon, 2002), psychological control also entails other strategies such as personal attacks and erratic emotional behavior (i.e., vacillating between a caring and an attacking orientation towards children). These strategies cannot be clearly identified as being internally or externally controlling . Children of parents who engage in personal attacks may experience a general sense of pressure rather than a specific sense of pressure from within. We argue that psychological control and internally controlling parenting as defined in SDT have substantial intersection, yet are not equivalent. The concept of psychological control appears to be somewhat broader, including such behaviors as personal attacks, than the concept of internally controlling parenting, which specifically refers to parental behavior targeting internally pressuring forces in the child's functioning through such behaviors as parental conditional regard.

To date, there is a surprising dearth of research addressing the hypothesis that psychological control can be distinguished from externally controlling parenting. In a study by Nelson, Hart, Yang, Olsen, and Jin (2006), it was found that physical coercion (i.e., a type of externally controlling parenting) and psychological control could be reliably distinguished, although correlations between both parenting dimensions were relatively high (*r*s around .50). More research is clearly needed to examine relationships between internally (psychologically) controlling parenting and a broader range of externally controlling tactics.

*Developmental outcomes of internally (psychologically) controlling and externally controlling parenting*

It can be predicted that both types of controlling parenting will yield differential effects on a variety of outcomes, including (a) the type of behavioral regulation (i.e., external vs. introjected) that drives children's functioning, (b) children's quantity and quality of engagement in behaviors requested by parents, and (c) the type of problem behaviors (i.e., externalizing vs. internalizing) and aggression (i.e., physical vs. relational aggression) displayed by children.

The differentiation between internally and externally controlling parenting parallels the conceptual distinction made in SDT between introjected and externally regulated modes of functioning. Accordingly, we expect that internally (psychologically) controlling parenting will activate primarily the introjects that reside in children, such that children will feel pressured from within. Externally controlling parenting would foster primarily external regulation, such that children behave because they feel compelled from the outside to do so. In other words, compliance with parental rules would be motivated by the desire to avoid externally imposed punishments or to obtain some externally administered tangible reward in the case of externally controlling parenting, whereas it would be motivated primarily by the avoidance of feelings of guilt, shame, and anxiety or the internal demand for self-aggrandizement in the case of internally controlling parenting.

It is important at this point, however, to acknowledge that we do not assume a perfect one-to-one relationship between internally controlling and externally controlling parenting on the one hand and introjection and external regulation on the other hand. First, as internally controlling messages are, by definition, communicated by external agents (i.e., parents), these messages will, at least initially, be experienced as pressuring from the outside. However, these messages would also trigger children's introjects such that, across time, children will gradually apply the internally controlling messages of their parents to themselves and pressure themselves from within. As a consequence, introjection

would become the *predominant*, yet not the exclusive, mode of functioning in these children's behavior. Second, externally controlling tactics may also elicit some internal pressure. For instance, as a consequence of receiving harsh punishment, a child may not only feel pressured from the outside but may simultaneously feel guilty for not having complied with the parent's requests or may feel anxious about losing the parent's approval. We would expect externally controlling parenting to be particularly likely to elicit both external regulation and introjection when children feel emotionally connected to their parents. When a child is physically punished within an otherwise warm and supportive parent–child relationship, a parent's punishment is likely to represent a threat to that relationship, which may evoke internal tension and pressure in the child. The combined activation of external regulation and introjection is also likely to happen when parents combine externally and internally controlling parenting in their rearing. For instance, a parent might say: "I hope this punishment makes you realize how much I am disappointed with you". In this example, a parent links the child's norm-transgressing behavior to an external punishment and additionally induces guilt, such that both external regulation and introjection may become activated.

Second, internally and externally controlling parenting are likely to relate differently to children's rule-following behavior. Compared to internally controlling parenting, externally controlling parenting is more likely to result in a lack of compliance with parental authority, particularly when parents are no longer present. Although externally controlling parenting may lead to situational compliance (i.e., compliance in the presence of the external contingencies), children may break the rules when the parents are no longer present to monitor their behavior or to apply the external contingencies. Studies with young children have indeed shown that power-assertive and punitive (i.e., externally controlling) parenting is related to a lack of compliance with parents' authority and to a lack of internalization (Kochanska & Aksan, 2006; Olson, Ceballo, & Park, 2002).

In contrast, the insidiously manipulative tactics used by internally controlling parents are relatively more likely to induce feelings of undue loyalty towards parents and other internal pressures to comply with parental authority. Such compliance would be driven by a desire to avoid feeling guilty and by anxiety to lose parents' love. As internally controlling parenting would elicit primarily an introjected regulation, such parenting is thus likely to yield at least some engagement in behaviors requested by parents, even when the parents are no longer present. In line with this reasoning, it has been shown that internally controlling parenting is related to feelings of internal compulsion to follow parental requests and to subsequent enactment of the parentally desired behaviors (Assor et al., 2004). However, children of internally controlling parents are at the same time likely to feel rejected by their parents and, in line with this, they have been shown to have feelings of resentment towards their parents (Assor et al., 2004; Roth, Assor, Niemiec, Ryan, & Deci, 2009). Thus, whereas externally controlling parenting is likely to result in straightforward non-compliance with parents' authority, internally controlling parenting would give rise to a mixture of ambiguous and potentially conflicting feelings towards parents. Children would get trapped in an approach-avoidance conflict, where they go back and forth between feelings of excessive loyalty and feelings of resentment for not being accepted for who they are. The sense of inner tension that goes with this ambiguous mix of feelings would in turn result in a conflicted, short-lived, rigid, and shallow type of compliance (Assor et al., 2004). Although the findings obtained in the studies of Assor and colleagues are consistent with our reasoning that internally controlling parenting relates to ambiguous feelings towards parents and subsequent half-hearted enactment of parental requests, these findings provide only initial evidence for our reasoning and future research is needed to further examine these issues.

Third, both types of controlling parenting would result in different expressions of aggression and problem behaviors. A fundamental assumption in social learning theory is that children model their behavior after their parents' behaviors (Bandura, 1973). On the basis of this assumption, it can be predicted that children of externally controlling parents are likely to engage in pressuring and aggressive behaviors. These children would be more likely to engage primarily in overtly damaging interpersonal behaviors, including physical aggression and blunt verbal hostility. In contrast, children of internally controlling parents would learn to pressure others in a more subtle, and manipulative fashion. These children's interpersonal aggressive behaviors would be more subtle and conditionally approving, as expressed, for instance, in gossiping, damaging other people's social reputation, and threatening to

end a friendship. The latter interpersonal behaviors are referred to as 'relational aggression' (Crick & Grotpeter, 1995).

Similarly, it seems likely that children of externally controlling parents, as they frequently witness their parents engaging in overt aggressive and controlling behaviors (e.g., corporal punishment), primarily display problem behaviors directed towards others. That is, children of externally controlling parents might model their own behavior in line with their parents' rearing style, such that they are more likely to engage in externalizing problems such as drug abuse and delinquency. Such problem behavior might also represent a defiant and rebellious reaction against parental authority. Research has indeed provided consistent evidence for associations between externally controlling parenting and externalizing problem behaviors in children and adolescents (e.g., Brody et al., 2001; Joussemet et al., 2008; Scaramella, Neppl, Ontai, & Conger, 2008). In contrast, it seems likely that children of internally controlling parents are more at risk for internalizing problems. These children would experience an inner conflict between complying with their parents' requests and pursuing their personally endorsed goals. This inner conflict would result in emotional distress (e.g., anxiety and depression) because children either lose their parents' approval or their sense of authenticity.

*Directions for future research*

Future research may want to examine associations between psychological control and SDT-based measures of internally and externally controlling parenting in order to empirically map out the similarities and differences between psychological control and these types of controlling parenting. Further research is also needed to test the hypothesis that psychologically controlling parenting is *primarily* associated with an internally pressuring regulation (i.e., introjection), whereas externally controlling parenting is *primarily* associated with external regulation. This research could also consider the possible role of interactions between the two types of controlling parenting (with a combination of both types most likely predicting the simultaneous presence of the two controlled regulations) as well as the possibly moderating role of parent–child relatedness.

Further, more research is needed to examine the hypothesis that internally (psychologically) controlling parenting, relative to externally controlling parenting, is more likely to elicit initial behavioral engagement and compliance with desired parental behaviors. Yet, due to the internally conflicting nature of their behavioral engagement, children of internally (psychologically) controlling parents would only display short-term and low-quality engagement in the desired behaviors when compared with children from autonomy-supportive homes.

Finally, although many studies have examined internally (psychologically) and externally controlling parenting in relation to types of problem behaviors (i.e., internalizing vs. externalizing) and aggression (i.e., relational vs. physical), few studies have simultaneously examined both types of parenting in relation to both types of problem behaviors and aggression (see e.g., Nelson et al., 2006 for an exception).

### 2. *What is the relation between psychological control and autonomy-support?*

Developmental researchers initially considered autonomy-support and psychological control as opposite ends of a dimension such that a lack psychological control would be indicative of high autonomy-support and vice versa. This view is in line with the initial work of Schaefer (1965a) who contrasted psychological control with psychological autonomy. One may wonder, however, whether psychological control and autonomy-support indeed represent opposite poles of one single dimension, or can better be defined as two distinct parenting dimensions (Barber et al., 2002). Herein, we argue that the relationship between psychological control and autonomy-support depends on how autonomy-support is defined. Specifically, two views on parental autonomy-support can be distinguished in the literature (Soenens et al., 2007): (a) a view stemming from separation–individuation models, in which autonomy-support is conceptualized as the promotion of independence (i.e., non-reliance on others) and (b) the SDT view, in which autonomy-support is conceptualized as the promotion of volitional functioning. We argue that psychological control, along with other types of controlling parenting, can be situated at one pole of the autonomy-support dimension as defined in SDT, with the opposite pole anchored by promotion of volitional functioning. In contrast, the opposite of promoting

independence would not be psychological control but would instead be promoting dependence. These two dimensions (i.e., 'promotion of volitional functioning vs. (psychological) control' and 'promotion of independence vs. dependence') would represent largely independent dimensions defining four parenting orientations. This view, which is graphically displayed in Fig. 1, is outlined in greater detail below.

*Distinguishing between two types of autonomy-support*

Within separation–individuation theory, autonomy-support is defined in terms of parental encouragement of adolescents' independent expression and decision-making (Blos, 1979; Gray & Steinberg, 1999; Silk et al., 2003). The ultimate goal of this parental promotion of independence is to raise adolescents who make decisions for themselves, rather than relying on others (behavioral independence), who do not depend on their parents for emotional support (emotional independence), and who believe they have control over their own life (cognitive independence) (Blos, 1979; Steinberg & Silverberg, 1986). Defined in this way, the opposite of independence-promotion is the fostering of dependency and the development of a relationship in which the child is reliant on the parent.

SDT-scholars have defined autonomy-support in a different way than is common in developmental psychology, that is, in terms of the promotion of volitional functioning (Ryan, 1993; Soenens et al., 2007). Parents who promote volitional functioning do not necessarily encourage their children to behave independently (i.e., without parental support) but instead attempt to encourage their children to behave on the basis of self-endorsed rather than controlled motives. To do so, parents who promote volitional functioning empathize with their children's perspective, encourage their children to carefully reflect on their values and goals, provide a developmentally appropriate degree of choice, and give a meaningful rationale when choice is limited (Deci et al., 1994). The opposite of promotion of volitional functioning is controlling parenting, where parents neglect their children's perspective and pressure their children to think, behave, or feel in particular ways.
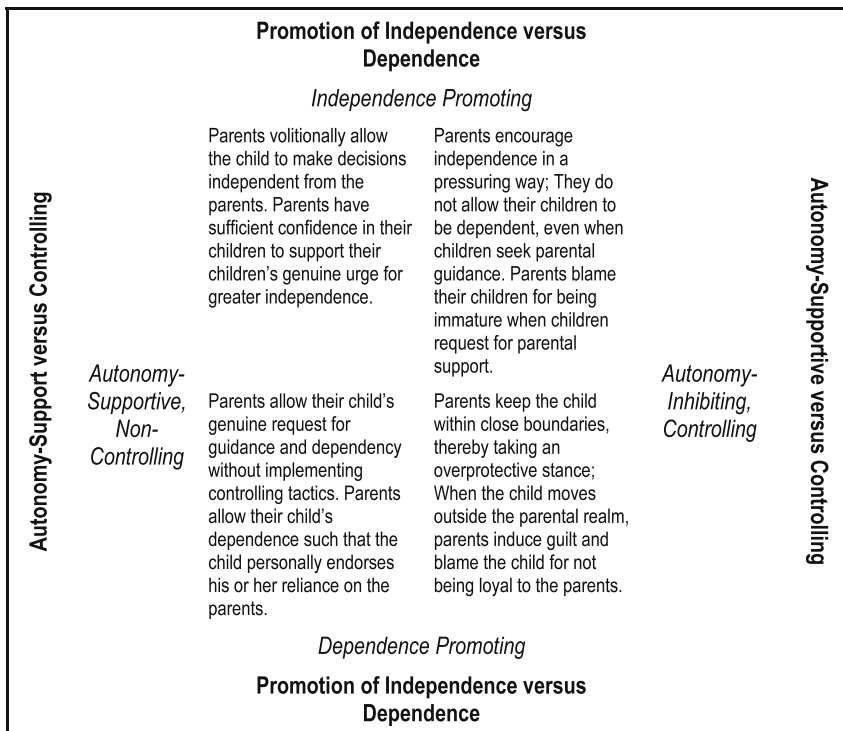


**Promotion of Independence versus Dependence**

*Independence Promoting*

| | |
|---|---|
| Parents volitionally allow the child to make decisions independent from the parents. Parents have sufficient confidence in their children to support their children's genuine urge for greater independence. | Parents encourage independence in a pressuring way; They do not allow their children to be dependent, even when children seek parental guidance. Parents blame their children for being immature when children request for parental support. |
| Parents allow their child's genuine request for guidance and dependency without implementing controlling tactics. Parents allow their child's dependence such that the child personally endorses his or her reliance on the parents. | Parents keep the child within close boundaries, thereby taking an overprotective stance; When the child moves outside the parental realm, parents induce guilt and blame the child for not being loyal to the parents. |

*Autonomy-Support versus Controlling* (left axis)

*Autonomy-Supportive versus Controlling* (right axis)

*Autonomy-Supportive, Non-Controlling* — *Autonomy-Inhibiting, Controlling*

*Dependence Promoting*

**Promotion of Independence versus Dependence**

Fig. 1. Graphical representation of the relation between "promotion of independence vs. dependence" and "autonomy-supportive vs. psychologically controlling parenting".

From the perspective of SDT, the promotion of volitional functioning (vs. control) is distinct from the promotion of independence (vs. dependence). By combining these two dimensions, four parental orientations can be defined (Ryan, 1993; Soenens et al., 2007), as displayed in Fig. 1. Parents can promote independence in a volitional fashion (i.e., the upper left quadrant in the figure) or they can do so in a controlling fashion (i.e., the upper right quadrant). Similarly, parents can promote dependence either in a volitional fashion (i.e., the lower left quadrant) or in a controlling fashion (i.e., the lower right quadrant).

*Relationships between psychological control and the two types of autonomy-support*

Clearly, autonomy-support as defined in SDT is antithetical to psychological control. Much like other types of controlling parenting, psychological control puts pressure on children without allowing opportunities for volitional functioning. Consistent with this reasoning, studies (e.g., Skinner, Johnson, & Snyder, 2005; Soenens et al., 2007) have shown that psychological control and autonomy-support – assessed as the promotion of volitional functioning – are strongly negatively correlated (*r*s around −.60). One reason that this correlation is not perfectly negative may be that psychological control represents only one specific way to be controlling (i.e., non-autonomy-supportive). As discussed earlier, there are other ways in which parents can thwart their children's feelings of volition and autonomy, for instance, through externally controlling tactics. Broader assessments of parental control that include both expressions of internally and externally controlling parenting may be even more strongly negatively correlated with the promotion of volitional functioning.

In contrast, psychological control would be relatively orthogonal to the dimension of promotion of independence (vs. dependence). Parents may promote independence either in a (psychologically) controlling fashion or in a non-controlling fashion. Parents may induce guilt when their children are not able to make it on their own and thereby encourage independence in a controlling fashion (upper right quadrant). In contrast, parents may support and encourage their children's independent decision-making by allowing as much choice as possible (upper left quadrant). Similarly, parents may promote dependence either in a (psychologically) controlling fashion or in a non-controlling fashion. Parents may use psychological control to keep their children within close emotional and physical proximity (lower right quadrant). In contrast, parents may allow dependence because the child chooses to rely on parents' advice and care. In this case, dependency is promoted in a non-controlling fashion (lower left quadrant). Consistent with the idea that promoting independence and psychological control represent relatively orthogonal dimensions, low correlations have been obtained between assessments of both constructs (e.g., −.18 in Silk et al., 2003). Further, evidence for the four-field model shown in Fig. 1 was provided in a recent study (Soenens, Vansteenkiste, & Sierens, 2009) adopting a person-oriented approach (e.g., cluster analysis) to chart naturally occurring patterns of the following three parenting dimensions: psychological control, promotion of volitional functioning, and promotion of independence. Cluster analysis yielded the four clusters described here and, importantly, high or low levels of psychological control and promotion of volitional functioning never co-occurred within a particular cluster of parenting dimensions, suggesting that both dimensions are indeed incompatible.

Note that the relatively orthogonal relation between psychological control and parental promotion of independence contradicts conceptualizations of psychological control as an *inherently* dependency-promoting strategy. Barber and Harmon (2002, p. 24), for instance, suggested that psychologically controlling behaviors "encourage dependency and inhibit individuation". The idea that psychological control and parental promotion of independence represent relatively orthogonal dimensions instead suggests that parents can also use psychological control to enforce independence (as depicted in the upper right quadrant in Fig. 1). Moreover, dependency is not necessarily fostered in a psychologically controlling way, as in some families dependency may be promoted and allowed in a volitional fashion (as depicted in the lower left quadrant in Fig. 1).

*Directions for future research*

On the basis of the above analysis and reviewed findings we suggest that the nature or quality of both independence and dependence is likely to be different when combined with promotion of volitional functioning vs. with (psychologically) controlling parenting. For instance, when promoted with

psychological control, dependence is likely to be "very needy and clingy" whereas when promoted in an autonomy-supportive way it would be experienced more as a volitional reliance on parents for support. Future research is needed to examine in greater detail the psychological dynamics and experiences associated with dependence and independence under conditions of volition or control.

Further, the few studies that explicitly examined the nature of the relation between autonomy-support and psychological control show some important methodological limitations, such as a reliance on self-report measures of the parenting dimensions and the use of brief assessments that may not tap the full range of autonomy-supportive and controlling parenting behaviors. Thus, additional research is also needed to examine the validity of the model depicted in Fig. 1 with parent-reported measures of parenting, with observed measures of parenting, and with more comprehensive measures of these parenting dimensions.

### 3. *How are psychological control and behavioral control different?*

At first sight, the distinction between behavioral control and psychological control seems straightforward. Whereas psychological control has been defined as "control over a child's psychological world", behavioral control has been defined as "control over a child's behavior" (e.g., Barber et al., 1994). Yet, a closer inspection of these definitions reveals that this way of differentiating psychological from behavioral control may be misleading for at least two reasons.

First, psychological control does not necessarily involve parental pressure to *feel* and *think* in ways dictated by parents (i.e., pressure in the psychological domain); it may also entail parental pressure to make the child *behave* according to parental expectations (i.e., pressure in the behavioral domain). As an example, guilt-induction can be used as a means to prohibit children to affiliate with deviant friends (Soenens, Vansteenkiste, & Niemiec, 2009). The observation that there is not a one-to-one relation between psychological control and behavioral control and emotional and behavioral outcomes was recently also made by Wang et al. (2007, p. 1608), who wrote: "There may not be a clear-cut line between psychological and behavioral control, in that parents could use psychological control for behavioral outcomes in children [...] whereas behavioral control could affect how children think and feel".

Second, the term 'control' in behavioral control has been used with two different meanings. The term control has been used to refer to parental attempts to regulate and structure the child's behavior, for instance, by communicating clear expectations and by monitoring the child's behavior. However, the term control has also been used to refer to a control*ling*, pressuring, or coercive parenting environment that controls children's feeling, thinking, and behaving. Unfortunately, in definitions and operationalizations of behavioral control, the two different meanings of the term control have been used interchangeably (see Grolnick & Pomerantz, 2009). To illustrate, behavioral control has sometimes been defined as a single quantitative dimension ranging from a lack of rules and structure (i.e., laxness and permissiveness) over appropriate rule-setting, to coercive, pressuring, and harsh rule enforcement (e.g., Nelson & Crick, 2002). In this view, controlling and pressuring strategies such as physical punishment need to be situated at the high end of a quantitative dimension labeled behavioral control.

Such a double usage of the term control in behavioral control is also reflected in several (but not all) scales assessing behavioral control. For instance, the behavioral control scale of the CRPBI (Schaefer, 1965b) contains items referring to a lack of structure (e.g., "My father lets me do anything I like to do"), items that tap into pressuring (external) control (e.g., "My father gives hard punishment"), and items that tap into the provision of structure in a pressuring fashion (e.g., "My father is always telling me how I should behave"). When relating such a measure of 'behavioral control' to assessments of child behavior, it is unclear whether the associations obtained are driven by structure/regulation (or a lack thereof), by (externally) pressuring parenting, or by a combination of both.

The confounding use of the two meanings of the term control in behavioral control is important for the conceptualization of psychological control because, depending on whether behavioral control reflects structure or pressure, the relation between psychological control and behavioral control is different. When behavioral control involves pressuring parenting tactics such as physical punishment and threats of withdrawing privileges, behavioral control and psychological control have a central feature in common, that is, pressure and coercion. In this case, behavioral control and psychological

control would frequently co-occur in parents' rearing styles and would, empirically, be strongly positively related.

In contrast, when behavioral control is used to define parental attempts to structure and regulate children's behavior, psychological control and behavioral control can be considered largely orthogonal dimensions. Indeed, Grolnick (2003) suggested that the dimension of structure (vs. laissez-faire) is largely orthogonal to the dimension of controlling vs. autonomy-supportive parenting. Specifically, structure would deal primarily with "what" parents do to monitor and regulate their children's behavior, and this dimension would be qualitatively different from parental control in the sense of pressure and coercion because the latter dimension pertains to "how" parents implement the structure (or fail to do so). Fig. 2 graphically displays this view. Guidelines for children's behavior and monitoring it (i.e., regulation/structure) can be done in either a controlling/autonomy-inhibiting or in a non-controlling/autonomy-supportive fashion. For instance, parents may communicate that they want their adolescent to be home before midnight after a party by acknowledging the adolescent's perspective and by explaining the importance and relevance of this rule (i.e., autonomy-supportive; upper left quadrant). However, they may also communicate rules for behavior in an externally controlling fashion (e.g., by threatening to use physical punishments or by shouting and yelling if the adolescent does not comply) or in an internally (psychologically) controlling fashion (e.g., by giving the silent treatment when the adolescent does not come home on time) (i.e., the upper right quadrant). Although all parents in these examples attempt to provide a guideline for behavior (and, hence, apply behavioral 'control'), only the parents in the latter two examples are controlling in the sense of being pressuring. According to SDT, the experience and motivational dynamics associated with parental structure are radically different for children, depending on whether it is communicated with an autonomy-supportive style or with a controlling style (Grolnick, 2003). Whereas children in the former case are likely to identify with their parents' regulations and to act upon those regulations with a sense of volition, children in the latter case are likely to feel compelled to follow their parents' regulations and to either
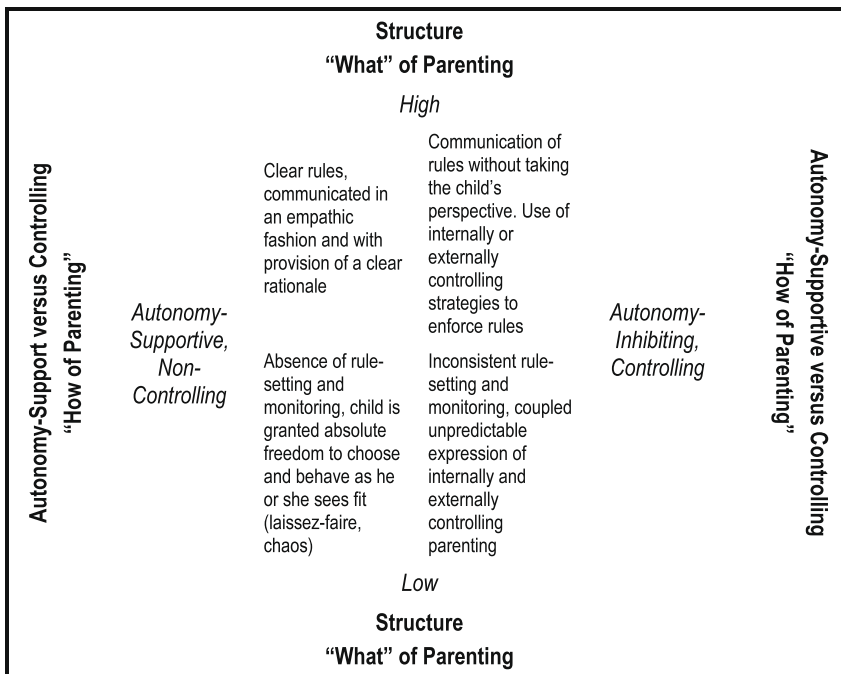


**Fig. 2.** Graphical representation of the relation between parental structure (regulation) and autonomy-supportive vs. controlling parenting.

comply with the regulations in a half-hearted and conflicted fashion or to rebel against their parents regulations altogether.

Importantly, parents may also engage in coercive parenting without providing clear guidelines for behavior or without the intention of regulating the child's behavior (see bottom right quadrant of Fig. 2). For instance, parents may burden their children with feelings of guilt and inferiority for no clear reason or may apply physical punishment in an inconsistent and unpredictable manner. Specifically with regard to psychological control, some parents may use guilt-trips to cope with their own frustrations or insecurities rather than to communicate rules for behavior or to structure their children's behavior. In this case, children will feel pressured without having a notion of their parents' expectations (i.e., low structure). This is an important point to highlight because it shows that psychological control may not always represent a targeted and intentional socialization strategy, aimed at producing a particular behavioral response in children (e.g., compliance).

Finally, as depicted in the bottom left quadrant of Fig. 2, parents can also provide a high degree of choice and freedom (high autonomy-support) without communicating any clear guidelines or expectations for behavior (low behavioral control), as in an indulgent, permissive, or laissez-faire climate. In such a case, parents would allow their children to decide virtually anything for themselves without providing any guidelines, expectations, or limits.

In sum, this analysis shows that controlling (including psychologically controlling) parenting, understood as parental coercion or pressure, and the provision of structure for appropriate behavior (sometimes referred to as parental behavioral control), are theoretically independent constructs. Therefore, it is unfortunate that the term 'control' is used within the socialization literature when referring to both constructs. In our view, the SDT-based term 'structure' or the term 'regulation', which was recently coined by Barber et al. (2005), represent better alternatives to refer to this parenting dimension.

### Directions for future research

It follows from our analysis that it is important to develop accurate and "pure" measures of parental regulation or structure. A recent study in education (Jang, Reeve, & Deci, in press) assessed classroom structure when examining structure and autonomy-support as separate dimensions, and it found that each dimension contributes independent variance to students' engagement in school. This work could provide a basis for developing such a measure of parental structure, which is important for at least two reasons. First, it allows for a more accurate assessment of the effects of structure (i.e., behavioral control as it was intended to be). Second, it could be examined whether the effects of providing structure are dependent on the way the structure has been communicated, that is, in an autonomy-supportive vs. a more (psychologically) controlling fashion (Reeve, 2002). To date, however, there is inconsistent evidence for an interaction between 'behavioral control' and psychological control, indicating that 'behavioral control' would be less effective in reducing the likelihood of problem behavior under conditions of high psychological control (Caron, Weiss, Harris, & Catron, 2006; Galambos, Barker, & Almeida, 2003; Gray & Steinberg, 1999). The lack of clear measures to tap into behavioral control/structure may be one of the reasons for this inconsistent pattern of findings. Thus, additional research is needed to test the hypothesis that parental structure that is imposed upon children in a controlling way (either internally or externally), rather than in an autonomy-supportive way, relates negatively to children's internalization of rules and to subsequent adjustment. The use of person-centered analyses that allow for the detection of naturally occurring parenting profiles might be useful in this respect as it would allow examining whether the four theoretically expected quadrants in Fig. 2 exist in reality and whether children in these four quadrants differ in terms of problem behavior and adjustment.

### Dynamics of psychological control

Having discussed the conceptualization of psychological control, one may wonder about the mechanisms through which psychological control negatively affects developmental outcomes in children and adolescents. Likewise, an important question to be addressed is why some parents are more likely to engage in psychological control than others. In this section, we review the relatively limited body of

research addressing these questions and relate the findings of these studies to the dynamics that SDT considers relevant to psychologically controlling parenting.

4. *What are the mechanisms explaining the link between psychological control and maladjustment?*

Whereas initial research on psychological control focused on problem behaviors (and internalizing problems in particular) as adolescent outcomes, recent 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 (e.g., Aunola & Nurmi, 2004; Bean, Bush, McKenry, & Wilson, 2003) and to feelings of academic competence (Soucy & Larose, 2000). Furthermore, psychological control is negatively related to peer support (Karavasilis, Doyle, & Markiewicz, 2003), and is positively related to general social anxiety (Loukas, Paulos, & Robinson, 2005), unease and withdrawal in therapeutic relationships (Soucy & Larose, 2004), and aggressive behaviors towards peers (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Nelson & Crick, 2002). These findings suggest that psychological control does not affect only children's intrapersonal functioning, but also their functioning in school and social relationships.

Relatively few studies have examined the mechanisms through which psychological control creates impairments in such diverse areas of children's and adolescents' functioning. We suggest that such mechanisms can be parsimoniously described within SDT's heuristic framework that postulates the existence of three basic psychological needs for autonomy, competence, and relatedness.

*Autonomy*

The need that is most directly frustrated by parental psychological control is the need for autonomy. Children of psychologically controlling parents feel forced to act, feel, or think in a way that is dictated by the parent. In line with this reasoning, it was found in a study among late adolescents (Vansteenkiste, Zhou, et al., 2005; Study 2) that adolescents of psychologically controlling (vs. autonomy-supportive) parents reported more controlled and less autonomous motives for studying and felt more stressed and anxious while taking a test. As indicated earlier, Assor et al. (2004) have shown that parental conditional regard relates to a sense of inner compulsion (i.e., introjection), which is clearly antithetical to the need for autonomy. Furthermore, experimental work among 11–12 year old children (Vansteenkiste, Simons, et al., 2005; Study 3) showed that the experimental activation of guilt prompted a more controlled and less autonomous regulation of the learning activity.

Additional indirect evidence for the autonomy-frustrating effect of psychological control was provided in a study by Soenens, Vansteenkiste, et al. (2005), who proposed and tested adolescent maladaptive perfectionism as a mediator between parental psychological control and depressive symptoms. Maladaptive perfectionists pursue high standards in a rigid and excessive fashion. As a consequence, they tend to chronically engage in harsh self-scrutiny and negative self-evaluation when standards for achievement are not met (e.g., Blatt, 1995). Maladaptive perfectionist self-representations would develop in individuals who experienced their parents as psychologically controlling and as expressing their love contingently upon the child's performance. The study of Soenens, Vansteenkiste, et al. (2005) empirically confirmed the hypothesized association between parental psychological control and maladaptive perfectionism, and thereby provided further indirect evidence for the assumption that psychological control frustrates adolescents' need for autonomy. Indeed, as maladaptive perfectionists behave on the basis of harsh and self-imposed standards for achievement, it is clear that they are essentially driven by a contingent self-esteem and by punitive internal pressures reflective of introjection (Shahar, Blatt, Henrich, Ryan, & Little, 2003).

*Competence*

The need for competence refers to the experience of effectiveness in carrying out a particular activity (White, 1959). Such feelings are likely to be undermined by psychologically controlling parenting because the critical tone that accompanies contingent regard, guilt-induction, and shaming conveys the message to children that they are ineffective in meeting parental expectations. As a consequence, children may develop a set of generalized insecurities about their competence.

A number of studies have provided indirect evidence for the competence-undermining effect of psychological control. For instance, experimental work (Vansteenkiste, Simons, et al., 2005) indicates that the experimental activation of psychological control (vs. autonomy-support) undermined 11–12 year old children's conceptual learning, suggesting a lack of skill development. Further, a number of correlational studies have shown that children of psychologically controlling parents are more easily distracted during their studies (lack of concentration), are less effective in organizing their study time (poor time management), process the learning material in a less thoughtful and more superficial way (poor information processing; Vansteenkiste, Zhou, et al., 2005), and obtain lower school grades (Aunola & Nurmi, 2004; Bean et al., 2003), all of which reflect a lack of competence satisfaction.

A number of studies also obtained negative associations between psychological control and direct assessments of academic competence (e.g., Conger et al., 1997; Soucy & Larose, 2000). The evidence for a relation between psychological control and maladaptive perfectionism and low self-esteem is also in line with the idea that psychological control undermines children's competence, as maladaptive perfectionists continuously question their skills, permanently fail to feel confident in reaching their standards, and have strong doubts about their self-worth and competencies more generally (Blatt, 1995). Interestingly, research (Kernis, Brown, & Brody, 2000) has shown that perceived psychological control does not only relate to lower self-worth, but also to stronger day-to-day fluctuations in self-worth. According to Kernis et al. (2000), such unstable self-esteem signals that children's self-worth is fragile, presumably because it depends upon children's capacity to meet pressuring external and internal contingencies.

### Relatedness

Psychological control is thought to undermine children's basic need for relatedness, which refers to a sense of connectedness with significant others (Baumeister & Leary, 1995). We suggest that psychological control might undermine children's sense of closeness to both parents and peers.

Children of psychologically controlling parents face an autonomy-relatedness conflict, as they may be pressured to renounce the realization of their personal aspirations to maintain a sense of connection with their parents. However, as the child feels forced to stay loyal vis-à-vis his or her parents, the sense of relatedness that is gained by following parental requests is unlikely to be deeply felt, genuine, and trustworthy. Instead, parental love is experienced as inauthentic and conditional and, in the long run, the parent–child relationship may become fraught with feelings of hostility and conflict. Consistent with this reasoning, Assor et al. (2004) found that perceptions of conditionally approving parenting were related to feelings of resentment towards parents and many other studies obtained evidence for negative associations between psychological control and assessments of parental support (e.g., Barber et al., 2005; Galambos et al., 2003). In addition, it has been shown that psychological control is related to insecure attachment in parent–child relationships (Doyle & Markiewicz, 2005; Karavasillis et al., 2003). Most likely, the insecure attachment representations developed in the parent–child relationship are carried forward to children's peer relationships (Bowlby, 1980). The negative generalized expectations about interpersonal relationships involved in these insecure attachment relationships would then elicit maladaptive interpersonal behaviors (e.g., relational aggression) and the subsequent impairments in children's social development cited earlier.

### Directions for future research

We suggest that the negative effects of psychological control on children's functioning can be parsimoniously summarized from the angle of thwarted satisfaction of the needs for autonomy, competence and relatedness. This heuristic framework might help to further organize future research and hypothesis-testing. To date, evidence for the need-thwarting effects of parental psychological control is mainly indirect. Hence, an important step in future research is to use more direct assessments of children's need satisfaction to examine whether thwarted need satisfaction mediates the adverse influence of psychological control on child development.

### 5. What are the antecedents of psychologically controlling parenting?

According to SDT, parents are likely to engage in pressuring and controlling parenting when they feel pressured themselves by not having their psychological needs for autonomy, competence, and

relatedness satisfied (Grolnick, 2003). In line with Belsky's (1984) model of antecedents of parenting, Grolnick (2003) distinguished among three types of pressure on parents: pressure from "above" (pertaining to social-contextual factors such as the parents' employment status), pressure from "within" (pertaining to parents' personality characteristics), and pressure from "below" (pertaining to their children's behavior). Recent research has yielded evidence for factors from each of these three categories of pressures. It has been shown, for instance, that pressures from above, such as low marital quality and inter-parental conflict, are related to more psychologically controlling parenting (e.g., Fauber, Forehand, McCoombs-Thomas, & Wierson, 1990; Krishnakumar, Buehler, & Barber, 2003). Thus, the negative emotions and conflicts experienced in the marital relationship might contaminate the parent–child relationship. Research also increasingly documents the role of pressures from below (i.e., child behavior and adjustment). Pettit, Laird, Dodge, Bates, and Criss (2001), for instance, found that children's display of externalizing problems at age 3 predicted mothers' use of psychological control at age 12. Pomerantz and Eaton (2001) found similar evidence in the academic domain: children's low achievement elicited mothers' use of intrusive control. Additionally, longitudinal research with adolescents shows that distressed adolescents viewed their parents as becoming increasingly controlling (e.g., Barber et al., 2005; Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008; Wang et al., 2007).

Although pressures from above and from below are important predictors of psychological control, Barber et al. (2002) hypothesized that pressures from within, including parents' own psychological status and developmental history, are the most powerful sources of controlling parenting. This hypothesis is in line with Belsky's (1984) claim that parents' own personality functioning represents the most proximal predictor of their parenting and that parents' own functioning may even be a catalyst or buffer for other potential influences such as environmental pressures and children's own behavior. Consistent with the notion that parents' functioning, and their controlled functioning in particular, affects their use of a (psychologically) controlling rearing style, research has shown that parental features such as contingent self-worth (Eaton & Pomerantz, 2003), ego-involvement (Grolnick, Gurland, DeCourcey, & Jacob, 2002), and proneness to shame (Mills et al., 2007) – all of which reflect controlled intrapersonal functioning – predicted more controlling parenting in general. Specifically with regard to the antecedents of psychological control, Verschueren et al. (2006) have shown that insecurely attached mothers displayed more psychological control during observed mother–child interactions. Additionally, two recent studies have examined the role of two parental personality dimensions with specific relevance to the dynamics of psychological control, namely maladaptive perfectionism and separation-anxiety.

Because maladaptive-perfectionist parents are rigidly focused on their own needs and wishes (Blatt, 1995), they are unlikely to be attuned to their children's needs. Instead, they are likely to project their own standards for achievement onto their children and may use psychological control as a means to impose these standards. Thus, maladaptive-perfectionist parents may critically evaluate their children's behaviors and induce guilt or withdraw affection when their children do not meet their expectations (Flett, Hewitt, Oliver, & MacDonald, 2002). Consistent with this reasoning, Soenens, Elliot, et al. (2005) found that psychological control was predicted by parental maladaptive perfectionism.

A second study examined separation-anxiety as an antecedent of psychological control (Soenens, Vansteenkiste, Duriez, & Goossens, 2006). Separation-anxious parents interpret their children's increasingly independent functioning as an indication of an impending process of separation. Given their own developmental history and personality functioning, they perceive this increasing self-reliance as a threat to the relationship with their children or, in other words, as a threat of loss (Bowlby, 1980; Hock, Eberly, Bartle-Haring, Ellwanger, & Widaman, 2001). Driven by this threat, parents would engage in psychological control as a means to keep their adolescent children physically and emotionally close to them. Consistent with this reasoning, Soenens et al. (2006) found that parents high on separation-anxiety were more likely to use psychological control. Moreover, separation-anxiety and maladaptive perfectionism were found to predict independent variance in psychological control, indicating that both represent distinct antecedents of psychological control.

Importantly, parental perfectionism and separation-anxiety both reflect expressions of controlled intrapersonal functioning. As a consequence of their pressuring standards for achievement (perfectionism) or their anxiety of losing the children's proximity (separation-anxiety), parents are pressured from within to use psychological control. These research findings thus confirm the hypothesis that

internally pressuring forces in parents' functioning translate into pressuring behavior towards children.

### Directions for future research

Research on the antecedents of psychological control is relatively scant and most studies on this issue have examined specific antecedents from one of the categories distinguished by Belsky (1984) and Grolnick (2003). More systematic and comprehensive studies are needed to simultaneously examine pressures from within, pressures from above, and pressures from below in the prediction of psychological control. This would allow researchers to determine the relative contribution of these types of antecedents. Moreover, 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 document interactions between the three types of antecedents in the development of a psychologically controlling parenting style. As an example, parents with a perfectionist orientation (i.e., pressure from within) may more easily perceive their children's performance as poor (i.e., pressure from below). Moreover, they may respond more vehemently and controllingly to their children's poor performance than parents low on perfectionism because they are more sensitive to failure-related events. Insights from such research could yield valuable and important information for therapeutic interventions aimed at preventing parents' use of psychological control.

### Generalization and manifestation of psychological control across age and culture

### 6. Why do the effects of psychological control generalize across age?

The majority of studies on psychological control has been conducted with adolescents and this research has shown that psychological control has similar negative consequences for adolescents' functioning during early, middle, and late adolescence (e.g., Barber et al., 2005; Galambos et al., 2003; Rogers et al., 2003; Soenens, Vansteenkiste, et al., 2005). One possible explanation for why researchers have focused mainly on the implications of parental psychological control for *adolescents*' adjustment is that adolescence is characterized by normative increases in separation and independence (Steinberg & Silverberg, 1986). In line with this observation, psychological control has been defined by various researchers as a parental strategy that hinders adolescents' independent functioning and that instead fosters dependency. Thus, by conceptualizing psychological control as a parenting strategy that forestalls the movement towards greater self-reliance and independence, it is logical to assume that the negative consequences of psychological control would be most pronounced during this age period.

However, as noted above, from the SDT-perspective, whether parents promote independence or dependency is relatively orthogonal from how this promotion occurs, that is, in a volitional or in a controlling fashion. Indeed, Ryan et al. (2006) stated: "The important issue is whether a person's dependence, whatever its level and at whatever stage of development, is experienced as autonomous or controlled" (p. 805). We have argued above that psychological control is not necessarily a dependency-promoting parenting strategy because parents can also rely on psychologically controlling strategies to enforce independence. If one defines psychological control as a type of parenting in which children are forced to act, think, or feel in particular ways through the use of internally controlling strategies (e.g., guilt-induction), as is the case within SDT, it becomes apparent that psychologically controlling parenting should yield negative effects at various ages and not only for adolescents. This is because psychologically controlling parenting undermines children's volitional functioning, which should have adverse consequences at any given age (Grolnick, 2003; Ryan et al., 2006).

Indeed, within SDT, volitional functioning is not considered a developmental stage (Ryan et al., 2006). Contrary to the process of separation–individuation, the development of which takes place primarily during two key developmental periods – namely infancy (Mahler, Pine, & Bergman, 1975) and adolescence (i.e., the second individuation process; Blos, 1979) – the development and psychological impact of volitional functioning would not be restricted to particular developmental stages (Ryan, 1993). SDT assumes that volitional functioning, although its form, developmental course, and content may vary at different developmental stages, is a mode of functioning that is operative throughout life and that is critical for mental health during each age period (Ryan et al., 2006). As such, it seems

important not only to study the consequences of parental psychological control during adolescence, but to extend research to earlier developmental periods as well.

One may wonder at what age children would begin to be affected by parental psychological control. On the basis of SDT, we have argued that this parenting dimension yields primarily negative developmental outcomes because it activates internally pressuring forces and emotions such as guilt, shame, and separation-anxiety (i.e., introjection). Given this hypothesis, it seems plausible to assume that parental psychological control is detrimental to children's functioning as soon as they are able to experience these internally pressuring emotions and regulate their behavior on the basis of them. There are strong indications in the developmental literature that children are able to experience these emotions quite early in their development. It has been shown, for instance, that children experience guilt over norm transgressions at 22 months of age (e.g., Kochanska, Gross, Lin, & Nichols, 2002). Similarly, individual differences in shame and negative self-evaluation are evident by 2 or 3 years of age (e.g., Mills, 2005; Tangney, Wagner, HillBarlow, Marschall, & Gramzow, 1996) and expressions of separation-anxiety are evident even sooner (e.g., Kearney, Sims, Pursell, & Tillotson, 2003). Thus, parental tactics appealing to children's feelings of guilt and shame and parental manipulations of the attachment bond are likely to affect children's development at least from toddler age on. Perhaps the most convincing evidence for the idea that young children are potentially vulnerable for the effects of psychological control comes from research by Dweck and colleagues on helplessness and self-blame (Heyman, Dweck, & Cain, 1992; Kamins & Dweck, 1999). In a number of experimental studies, Kamins and Dweck (1999) showed that it is possible to activate feelings of contingent self-worth in 5-year old children. When children received person-oriented feedback on a task (i.e., criticism or praise conveying an evaluation of the child based on his or her performance) rather than process-oriented feedback, they were less likely to persist in a subsequent task where they failed and they also felt that their performance reflected negatively on their abilities. Such results suggest that even 5-year olds compare their performance to internal standards and that it is possible to elicit internally pressuring forces in children through conditionally approving feedback, which is a core element of psychological control.

Although there is indirect evidence from the developmental literature that young children may suffer from psychologically controlling parenting, only a few studies have directly examined the effects of psychological control during the early stages of life (e.g., Caron et al., 2006; Hart et al., 1998; Morris et al., 2002; Rubin, Burgess, & Hastings, 2002). Thus far, this limited research has yielded relatively equivocal results. Part of the reason for this is the difficulty in measuring children's perceptions of parental psychological control. The assessment of psychological control with younger children requires creative and age-appropriate tools such as the Puppet Interview (e.g., Morris et al., 2002). Using this method, Morris et al. (2002) found that children as young as 6 years of age were able to provide a valid report of their parents' use of psychological control. Moreover, Morris et al. (2002) found that psychological control predicted both internalizing and externalizing problems, albeit only in children who scored high on irritable distress. Caron et al. (2006) found that ratings of psychological control in observed interactions between 9-year old children and their primary caregivers were predictive of parent-reported internalizing and externalizing problems. Other studies with young children have relied on parental reports of psychological control. For instance, in a sample of 5–6 year old children and their parents, Aunola and Nurmi (2005) found that mothers' reports of psychological control predicted increased problem behaviors although only under conditions of high maternal affection. In a sample of 5-year old children and their mothers, Hart et al. (1998) found that mothers' reports of psychological control were positively correlated with teachers' reports of aggression. In sum, although the evidence for a link between psychological control and impaired adjustment in young children is somewhat less straightforward than the evidence obtained among adolescents, the findings suggest (a) that psychological control is a relevant parenting dimension for young children and (b) that associations between psychological control and child adjustment, if any, are negative. These findings are compatible with SDT's assertion that psychological control frustrates individuals' basic needs, which, because of their innate nature, should yield adverse consequences for individuals at all ages (Deci & Ryan, 2000).

*Directions for future research*

Given the relative paucity of research on psychological control in populations of young children, further research on the assessment and the consequences of psychological control at a young age is

needed. To achieve this goal, future research will need to determine specifically how psychological control is manifested at a younger age. Although it can be assumed, based on SDT, that psychological control has equally harmful effects on adjustment among children as it does among adolescents, it is possible that the specific manifestations and outcomes of psychological control change with children's age (Pomerantz & Eaton, 2000). The manifestations of the adverse effects of psychological control may, for instance, depend on the developmental task at hand during particular life stages as defined in Erikson's (1968) theory of psychosocial development. Whereas psychological control may result in a lack of confidence during toddlerhood (i.e., when children are dealing with the resolution of the psychosocial stage 'autonomy vs. shame'), it may hinder identity development during adolescence (Luyckx, Soenens, Vansteenkiste, Berzonsky, & Goossens, 2007). Thus, although psychological control is likely to undermine psychosocial growth from toddlerhood to early adulthood, the manifestation of this undermining effect may be colored by the specific psychosocial crises corresponding to each life period.

Social domain theory is another theory that may prove helpful in understanding how psychological control manifests and how it affects development across life periods (e.g., Smetana & Daddis, 2002). According to this theory, there are age-related changes in how parents and children think about adequate parental authority in different life domains. Whereas younger children and parents tend to agree that parental intervention is legitimate in many life domains, a more differentiated view on legitimate parental authority tends to develop as the children age. Both parents and children increasingly believe that interventions in the personal domain are unwarranted, but they may disagree about what should be regarded as personal themes. These differences may be a source of psychologically controlling interactions between parents and children (Smetana & Daddis, 2002). Given that the content of parent–child conflict may change across age, it can be predicted that the content or substance of parents' use of psychological control may also differ by age. For instance, whereas psychological control during middle childhood may frequently revolve around issues of clothing, by the period of adolescence parents and children may agree that clothing is a personal issue such that parents' psychological control no longer deals with the clothing issue. During adolescence, other conflict areas such as dating and relationships may replace the issue of clothing. Thus, future research on age-specific expressions of psychological control could be informed by social domain theory.

### 7. Why do the effects of psychological control generalize across culture?

Another question that has received increased empirical attention is whether the negative effects of psychological control generalize to non-Western cultures. It has been argued that psychologically controlling strategies such as love withdrawal (Ho, 1986) and shaming (Olsen et al., 2002; Wu et al., 2002) are more frequently used in Eastern societies than in Western societies. 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., 2006). 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 whether (a) the concept of psychological control has the same meaning and can be equivalently measured in non-Western cultures, and (b) structural relations between psychological control and adolescent psychosocial functioning are similar across cultures.

Research has generally confirmed that psychological control can be measured equivalently across race and culture (e.g., Krishnakumar, Buehler, & Barber, 2004; Olsen et al., 2002). More importantly, increasing research has begun to address the structural equivalence of relations between psychological control and maladjustment across various cultural and ethnic groups. Vansteenkiste, Zhou, et al. (2005), for instance, found that a composite measure of psychologically controlling vs. autonomy-supportive parenting negatively predicted a composite measure of adjustment and was negatively associated with the use of adaptive learning strategies among Chinese students. In a study with Canadian university students, Rudy, Awong, and Lambert (2008) found that associations between perceived parental psychological control and a number of internalizing problems were not moderated by background (i.e., European vs. Chinese). Further, in the Cross-National Adolescence Project (C-NAP) – probably the most comprehensive and ambitious cross-national study of psychological control to date – Barber 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. Finally, two recent large-scale longitudinal studies in China (Wang et al., 2007) and in Hong Kong (Shek, 2007) have confirmed that psychological control prospectively predicts maladjustment in Eastern samples of adolescents. Thus, it has become clear that the negative consequences of psychological control generalize across cultures.

Such findings may come as a surprise to some cross-cultural researchers but also to some developmental researchers because, as mentioned earlier, psychological control is often conceptualized as a parenting strategy that stifles independence (Barber & Harmon, 2002). As individualistic (Western) societies are more strongly characterized by independence and personal achievement than collectivistic societies (Markus & Kitayama, 1991), one might expect that psychological control would only have detrimental effects in the former type of societies. This would suggest that psychological control might even be adaptive in collectivistic societies where compliance and interdependence are highly valued. On the basis of our conceptual analysis, however, we do not view psychological control as a dependency-promoting parenting style. Rather, because of its pressuring and manipulative character, psychological control frustrates individuals' universal need for volitional functioning and, as such, "speaks quite basically to human development" (Barber et al., 2005, p. 114).

### Directions for future research

Although promising, studies on the cross-cultural effects of psychological control have typically relied on relatively crude and general measures of psychological control that were developed from a Western point of view. An important aim for future research would be to develop culturally sensitive assessments of psychological control that better allow participants and researchers to grasp the specific meaning and expression of psychological control in different cultural and ethnic contexts. To this aim, qualitative research could be highly informative. Such research might reveal, for instance, that in cultures where family bonds and loyalty are strongly valued (e.g., Southern Europe and South America) psychological control may revolve primarily around issues of parent–child closeness and separation, whereas in cultures with a strong focus on individual performance (e.g., North America), psychological control may revolve primarily around issues of achievement. Irrespective of the culture-specific themes involved in parents' use of psychological control in different cultures, SDT would predict that children's and adolescents' subjective experience of (psychological) control would be harmful for children across the globe because such experiences would frustrate a universal need for autonomy.

Apart from the generality of psychological control across age and culture, future research also needs to systematically address the generality of psychological control across other important socio-demographic factors including SES, type of living area (rural vs. urban), and gender. A further examination of gender in relation to psychological control may be particularly important because some (e.g., Rogers et al., 2003) have argued that girls would be more likely than boys to respond to psychologically controlling parenting with internalizing problems. There is, however, little evidence for systematic mean-level gender differences in the experience of psychological control, nor is there consistent evidence for a moderating role of gender (Barber & Harmon, 2002). An important limitation in extant research on the role of gender in psychological control, however, is that this research typically included general and broad measures of psychological control without considering the possibility that psychological control can be conveyed differently to boys and girls and by mothers and fathers. A recent study by Soenens, Vansteenkiste, and Luyten (in press) addressed the latter possibility and found that mothers' use and girls' experience of psychological control revolved more often around issues of separation and interpersonal closeness whereas fathers' use and boys' experience of psychological control revolved more often around issues of achievement and performance. This study thus shows that the lack of gender differences in crude assessments of psychological control masks subtle underlying gender differences in the themes involved in psychological control. In spite of these gender differences in the content of psychological control, it can be argued on the basis of self-determination theory that psychologically controlling parenting is equally harmful for boys and girls because it ultimately frustrates children's basic need for autonomy.

## Conclusion

Over the past decade, research has provided increasing evidence for the negative consequences of psychological control for individuals' relational, competent, and volitional functioning. As the socialization literature has studied mainly the concept from a bottom-up perspective, this paper aimed to apply a broader theoretical perspective to the concept of psychological control by linking it to self-determination theory, a well-established social-psychological and motivational theory. On the basis of our conceptual analysis, we proposed that psychological control involves the use of controlling and manipulative tactics that appeal primarily to internally pressuring forces in children's functioning, such as shame, guilt, and separation-anxiety. It is our sincere hope that the hypotheses and directions for future research based on this conceptual analysis may serve as a source of inspiration for further conceptual elaboration and empirical research on the construct of parental psychological control.

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