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Adolescents' Perceptions and Interpretations of Parental Control: Differentiated by Domain and Type of Control

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ADOLESCENTS' PERCEPTIONS AND INTERPRETATIONS OF PARENTAL CONTROL: DIFFERENTIATED BY DOMAIN AND TYPE OF CONTROL

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ADOLESCENTS' PERCEPTIONS AND INTERPRETATIONS OF PARENTAL

CONTROL: DIFFERENTIATED BY DOMAIN AND TYPE OF CONTROL

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University of Nebraska, 2006

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In this study, early to middle adolescents' perceptions and interpretations of

psychological control and behavioral control were examined using quasi-experimental

methods. A total of sixty-seven adolescents (M = 14.25 years, SD =1.66), consisting of 32

$7^{th}/8^{th}$ graders (M = 12.69 years, SD = .69) and 35 $10^{th}/11^{th}$ graders (M = 15.69 years, SD

= .72) responded to hypothetical vignettes depicting everyday interactions between

parents and an adolescent involving psychological versus behavioral control,

manipulating the levels of control and authority domains. The adolescents were asked to

indicate the degree to which the control depicted in the vignettes would indicate parental

intrusiveness, their mattering to parents, and their competence. Results showed that

adolescents' perceptions and interpretations of parental control differed as a function of

control type, level, and domain. High levels of behavioral and psychological control were

construed as equally negative (e.g., meaning they mattered less to their parents), in

contrast to perceptions of moderate levels of control. It was also found that parental

control exercised in the personal domain was seen as less indicative of mattering to

parents than control exerted in the prudential domain. These differences were particularly

pronounced for psychological control. Furthermore, these relationships were also

moderated by adolescents' grade and gender. In comparison to younger adolescents,

older adolescents were more likely to view both types of parental control as intrusive

when exerted at high levels. Gender differences emerged strongly in the prudential domain, where boys were somewhat more negatively affected by high levels of psychological control than by high levels of behavioral control. In contrast, girls were more likely than boys to interpret moderate levels of behavioral control in a positive light. The discussion focused on the importance of assessing adolescents' perceptions and interpretations of parental control and the ways in which these perceptions might mediate the relationships between parental control and adolescents' development.

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CHAPTER I

Introduction

Much of the research on parenting has focused on the salient dimensions assumed to be important for the development of children. Collectively, two important dimensions of parenting have been identified: parental responsiveness and parental control (Darling & Steinberg, 1993). Parental responsiveness refers to the extent to which parents promote their children's individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and desires (e.g., Maccoby & Martin, 1983). In contrast, parental control refers to the extent to which parents supervise, discipline, and regulate their children (e.g., Holmbeck, Shapera, & Hommeyer, 2001; Maccoby & Martin, 1983). This includes parents' willingness to confront children who refuse to comply (Darling & Steinberg, 1993).

The importance of parental control in adolescents' development has been extensively documented. Parenting very frequently revolves around issues of control. This is a long-standing notion originating from classic developmental theories (e.g., psychodynamic theories). These theories suggest that in order to become competent members of society, children must learn how to regulate their impulses and desires, exerting control over their behaviors in accordance with societal rules and expectations (Barber, Olsen, & Shagle, 1994). Research has demonstrated that children without adequate regulation tend to be more susceptible to influences from other forces (e.g., peers) (Fuligni & Eccles, 1993) and more prone to engage in various forms of problem behaviors (cf. Bogenschneider, Wu, Raffaelli, & Tsay, 1998; Brown, Mounts, Lamborn, & Steinberg, 1993). Consequently, it has been assumed that the primary tasks of parents

are to influence, instruct, and control their children (e.g., Maccoby & Martin, 1983).

During adolescence, however, control becomes a particularly important issue to consider

because the primary developmental task for adolescents in the Western society is the

development of autonomy (Eccles et al., 1993). Adolescents are expected to learn to

regulate *themselves* in order to become independent emotionally, psychologically, and

behaviorally. According to Eccles et al. (1993), the gradual adjustment from unilateral

parental control to more egalitarian levels is necessary for healthy psychosocial

development in adolescence. This shift in parental control affords adolescents

opportunities to explore and develop autonomy and individuality.

Parents vary in how they attempt to control their adolescents and the extent to

which their attempts are effective (e.g., Steinberg, 1990). Barber (1996) argued that

determining when parental control is functional or dysfunctional requires examining

parents' goals or the locus of their control attempts (i.e., what it is that parents are trying

to control and why they are attempting to control it).

Two different, but complementary approaches to parenting have addressed the

central role of parental control in adolescents' development (e.g., Barber, 1996). The first

approach, which utilizes typological models, defines parenting as a global attribute or

style (Darling & Steinberg, 1993). Specifically, four parenting styles (i.e., authoritative,

authoritarian, indulgent, and permissive) are derived from these two parental dimensions:

responsiveness and demandingness (or control) (Maccoby & Martin, 1983). A review of

studies has shown the authoritative parents, characterized by high levels of

responsiveness and demandingness are generally associated with positive outcomes for

adolescents in a wide range of areas of development (e.g., Gray & Steinberg, 1999;

Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Maccoby & Martin, 1983; Steinberg, 1990). In contrast, the other styles of authoritarian and neglectful have been associated with a range of negative outcomes for adolescents.

This typological model of parental control has provided some useful information about important role of parental control in adolescents' development, yet it is limited for two reasons. First, in this approach parents' behavior is tailored to parents' specific goals. As such, this approach represents relatively stable parental attitudes and behaviors. Second, this typological model deals with only one type of parental control (i.e., demandingness) (Barber, 1996). Thus, our understanding of the effectiveness and consequence of parental control remains rather abstract and generalized.

The second approach, focusing on specific parental behaviors, views parental practices as contextually determined (Barber, 2001; Darling & Steinberg, 1993; Gray & Steinberg, 1999). With recent attempts to specify the effects of parental control, researchers have delineated two types of parental control: psychological control and behavioral control (Barber, 1996; Barber & Harmon, 2001; Barber et al., 1994; Steinberg, 1990), providing a more meaningful approach to understand the processes by which parental control affects adolescents.

Psychological control refers to parental practices that intrude on and impede the adolescents' self-system and/or create the relative degree of psychological distance from parents and family members (Barber, 1996). This form of parental control includes intrusive and manipulative behaviors, guilt induction, withdrawal of love, and excessive shaming (Barber, 1996; Barber & Harmon, 2001; Barber et al., 1994). Behavioral control, on the other hand, refers to parenting practices that attempt to control and regulate

adolescents' behavior by setting and enforcing rules and limits. This type of control reflects parental efforts to shape their adolescents into competent members of society (Barber, 1996). A lack of behavioral control has been proposed as indicating disengagement or a lack of adequate parental regulation of adolescents' behavior (Barber, 1996), and overall parental indifferences (Maccoby & Martin, 1983).

Consequences of psychological control and behavioral control on adolescents' development have been proposed. Parental use of psychological control has been hypothesized to interfere with adolescents' healthy psychological and emotional development (Barber, 1996; Barber, Bean, & Erickson, 2001), such as expressions of self-will (Conger, Conger, & Scaramella, 1997), the establishment of self-reliance (e.g., Gray & Steinberg, 1999; Krishnakumar, Buehler, & Barber, 2003; Linver & Silverberg, 1995), self-confidence (e.g., Silk, Morris, Kanaya, & Steinberg, 2003), ego development (Hauser et al., 1984), and self-discovery (e.g., Holmbeck et al., 2001). In this way, the use of psychological control is assumed to lead to feelings of personal inadequacy and distress (e.g., Barber, 1996; Barber & Harmon, 2001; Steinberg, 1990), and ultimately, to internalizing problems. Furthermore, compared to preadolescence, the effects of psychological control have been proposed to be particularly salient for adolescence, when individuals undergo changes in multiple domains including physiological, psychological, as well as social-relational changes (e.g., Barber et al., 1994).

With respect to behavioral control, researchers generally agree with its positive effects on adolescents as opposed to psychological control. Barber et al. (1994) argued that the presence of behavioral control, such as existence of rules, restrictions, as well as having knowledge of adolescents' daily activities, are important parenting practices with

positive consequences for adolescents. Alternatively, the absence of behavioral control has been hypothesized to have negative consequences for both young children and adolescents.

Recent empirical research by Silk et al. (2003) provided support for differentiating types of control by showing that psychological control differed from autonomy granting (i.e., parental encouragement and support for independence). Their path analysis showed differential relationships between psychological control and autonomy granting to adolescents' outcomes. Parental psychological control was more strongly and positively associated with internalizing problems, such as anxiety and depression, whereas parental autonomy granting was more predictive of adolescents' positive functioning, such as high self-esteem and self-competence. Thus, the authors argued that the presence of psychological control has more deleterious consequences than the absence of autonomy granting.

A number of studies have examined the theoretical linkage of psychological control and behavioral control to adolescents' adjustments. At the general level, some consensus seems to have emerged. As mentioned earlier, psychological control has been examined in relation to internalizing problems, such as depressive symptoms and anxiety (e.g., Barber, 1996; Barber et al., 1994; Pettit & Laird, 2001; Pettit, Laird, Dodge, Bates, & Criss, 2001). The findings suggest that psychological control is more predictive of negative consequences, such as low self-esteem (e.g., Conger et al., 1997; Garber, Robinson, & Valentiner, 1997; Leondari & Kiosseoglou, 2002; Silk et al., 2003), low emotional and social adjustment (Soucy & Larose, 2000), low life satisfaction (Seibel & Johnson, 2001), and academic alienation (Eccles, Early, Frasier, Belansky, & McCarthy,

1997). Behavioral control, on the other hand, has been examined in relation to externalizing problems. The positive effects of behavioral control have been reported, including lower levels of problem behavior, such as stealing (Eccles et al., 1997; Jacobson & Crockett, 2000), drug use (e.g., Barber et al., 1994; Herman, Dornbusch, Herron, & Herting, 1997), alcohol use (e.g., Barnes, Reifman, Farrell, & Dintcheff, 2000), risky sexual behavior (Rodgers, 1999), and antisocial behavior (e.g., Manson, Gauce, Gonzales, & Hiraga, 1996). These differential linkages have also been reported in both cross-sectional (e.g., Barber et al., 1994; Garber et al., 1997) and longitudinal studies (e.g., Barber, 1996; Barnes et al., 2000; Pettit et al., 2001).

Despite this general trend, several studies have shown mixed results, in that both psychological control and behavioral control are related to internalizing and externalizing problems (Barber, 1996; Conger et al., 1997; Eccles et al., 1997; Herman et al., 1997; Krishnakumar et al., 2003). For example, a cross-sectional study by Eccles et al. (1997) showed that high levels of parental psychological control are associated with high levels of both depression and antisocial behavior, including damage of property and use of drugs in early adolescence. Conger et al. (1997), utilizing a longitudinal study, also reported that parental use of psychological control was linked with high levels of antisocial behavior and low self-confidence, even after controlling for the prior adjustment problems in early to middle adolescence. Similar results have been reported based on the more diverse population and the wide range of age groups including early to late adolescence (Herman et al., 1997).

However, other researchers have reported inconsistent results. Holmbeck et al. (2001) found that whereas psychological control was linked to high externalizing

problems and low adaptive behaviors, behavioral control was only associated with high internalizing problems. At the extreme levels (i.e., too low and too high), behavioral control has been found to be associated with negative outcomes, such as low academic competence (Gray & Steinberg, 1999) and high levels of externalizing problems (Manson et al., 1996).

Several issues may account for these ambiguous results. First, little research has specifically examined the underlying mechanism through which psychological control and behavioral control affect adolescents. Although psychological control and behavioral control have been linked to adolescents' adjustment problems, the interim connection through which psychological control and behavioral control lead to internalizing and externalizing problems has not been well understood. One notable exception was the study conducted by Garber et al. (1997). The authors demonstrated the association between maternal psychological control and adolescents' depressive symptoms was partially mediated by adolescents' levels of self-esteem. This study suggests that adolescents' perceived self-worth may be a potential mediator that links psychological control and depressive symptoms. However, this study was based on a cross-sectional design, and the participants were unique in that only mothers with a psychiatric history were selected for the study. Further examination is clearly needed to fully understand this association.

Other lines of studies, however, suggest that adolescents' self-evaluation processes are a central in accounting for the effects of parental control (Pomerantz, 2001). Pomerantz (2001) has postulated that adolescents' attributional styles and competence estimation may be two critical mechanisms through which parental control

links to the development of depressive symptoms. The findings based on a short-term longitudinal study revealed the positive relationship between maternal controlling behavior (i.e., monitoring and helping without request) and adolescents' depressive symptoms. Yet this linear association was only found for those who had negative attributional styles. A similar relationship was found for those who were low in self-competence. This study, thus, demonstrated that maternal control behavior interacted with adolescents' self-perceptions of attributional styles and competence to predict depressive symptoms. These findings suggest that adolescents' subjective experiences of parental control are important mediating influences. That is, understanding the linkages between parental control and adolescents' adjustments may require examining how adolescents perceive and interpret parental control in self-relevant ways, rather, than just considering what parents do.

Another issue for research on psychological control and behavioral control is that these types of parental control are assumed to affect adolescents uniformly, regardless of contextual variables. Researchers generally assume that psychological control has deleterious effects on adolescents, whereas behavioral control leads to positive outcomes for adolescents. This assumption is, however, inconsistent with the previous studies that indicate that adolescents distinguish actions and events/issues into conceptually different categories referred to as domains (e.g., moral, prudential, conventional, and personal) (Smetana, 1988, 2002; Smetana & Asquith, 1994; Turiel, 1983). Issues in different domains have different meanings to individuals. Adolescents define the issues that affect individuals' rights and welfares as being different from the issues that have consequences for safety and health. These issues have been referred as the moral and prudential

domains, respectively (e.g., Smetana, 1988; Smetana & Asquith, 1994). Adolescents have been also found to distinguish personally relevant issues from other types of events, such as moral issues (Nucci & Smetana, 1996; Turiel, 1983), and their definition of what constitutes personal issues appears to expand as they grow older (e.g., Nucci & Smetana, 1996; Smetana & Asquith, 1994; Smetana & Daddis, 2002; Turiel, 1983).

These domain-differentiated conceptions of issues and events have important implications for parent-adolescent relationships. Smetana (1988) contends that during adolescence, reasoning regarding parental control between parents and adolescents becomes more differentiated such that conflict indexes the extent to which adolescents have defined their personal domain independent of parents' authority. Smetana and Daddis (2002) further argued that adolescents' domain-differentiated perceptions of parents' behaviors indicate adolescents' beliefs about the legitimacy of control. In support of this position, Smetana and Daddis demonstrated that the relationship between adolescents' willingness to comply with parental authority and their perceptions of parental control differed as a function of domains. Those adolescents who perceived their parents as highly restrictive over the personal domain and believed that parents should have withdrawn control, reported that their parents were more psychologically controlling. In contrast, adolescents who perceived their parents as more controlling in the domains tapping moral and conventional issues did not report perceiving their parents as either psychologically or behaviorally controlling.

Thus, it seems relatively clear that there are similarities and differences in psychological control and behavioral control as perceived by adolescents. Adolescents may view parental control having both positive and negative qualities (Pomerantz &

Eaton, 2000; Pomerantz & Ruble, 1998). Indeed, Pomerantz and Eaton (2000) showed that even young children are capable of acknowledging both positive and negative qualities of the same parenting. The authors demonstrated that second to fifth graders generally perceived parents' positive intentions for parental control over personal issues, such as choosing friends and requesting help with homework. Older children, however, were more likely to describe such parenting negatively compared to younger children (e.g., regulation of competence). This study suggests that differences in children's perceptions of both positive and negative qualities of the same parental control are more likely to be pronounced as children move into adolescence. Given that adolescents are not only behaviorally and psychologically more independent than are preadolescents, but that they also *expect* more independence (Feldman & Quatman, 1988; Feldman & Wood, 1994), adolescents may be more apt to perceive parental control as negative. In summary, the studies by Smetana and Pomerantz and their colleagues together suggest that a central issue in elucidating the effects psychological control and behavioral control is understanding adolescents' perceptions and interpretations of parental control, taking the domain in which the control is exerted into account.

Theoretically, the inconsistent findings across studies on parental psychological control and behavioral control may indicate that researchers are not taking into account the reciprocal relationship between parents and adolescents. Transactional models of parenting suggest that both parents and adolescents are influential (Kuczynski, 2002). Although current research on parent-adolescent relationships typically acknowledges the effects of parenting on adolescents (e.g., Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000), examination of adolescents' influences is often limited to adolescents'

temperamental and physical characteristics. Indeed, the most relevant distinction between psychological control and behavioral control is based on parental goals and intentions (Barber et al., 1994). Adolescents' perspective of parents' goals or intentions is virtually overlooked. Although researchers typically address this issue by using adolescents' self-reports, it is important to explicitly attend to adolescents' perceptions and interpretations of parental behavior. Investigation of how adolescents actually perceive and interpret parents' psychological control and behavioral control may reveal important links to their development.

Main Objectives of the Current Study

Although empirical research has generally demonstrated the theoretical linkages between psychological control, behavioral control, and adolescents' adjustment, there are several studies that have shown inconsistent results. This is in part because little attention has been given to adolescents' perceptions and interpretations of different types of parental control. The main objective of this study was, therefore, to explicitly examine adolescents' perceptions and interpretations of parental psychological and behavioral control. The basic premise of this study was that researchers' categorization of psychological and behavioral control using parents' perspectives (e.g., via parental intentions and goals) may not be as useful a distinction as adolescents' perceptions and interpretations of control. For adolescents' development, adolescents' cognitions are more proximal sources of influence than parental cognitions.

Three types of adolescents' perceptions and interpretations were proposed to be relevant to distinguishing types of parental control. It was proposed that adolescents perceive and interpret parental control as an indication of the extent to which their parents

(a) are intrusive by interfering with their autonomy needs, (b) think their adolescents matter to them, and (c) consider their adolescents competent. Age and the gender of adolescents were also included as the critical variables moderating adolescents' perceptions and interpretations of parental control.

Assessment of adolescents' perceptions of intrusiveness was guided in part by Barber's conceptualization of psychological control (1996). Although Barber and Harmon (2001) explicitly stated that intrusiveness is the core characteristic, by which psychological control affects adolescents, this assumption has received little empirical attention (e.g., Barber, 1996; Barber et al., 1994; Gray et al., 1997; Silk et al., 2003). With the exception of Schaefer's CRPBI (Child's Report of Parental Behavior Inventory, 1965), the existing measures for assessing psychological control do not include intrusiveness as an independent construct (e.g., Barber, 1996). Rather, psychological control is usually assessed with a combination of other measures (e.g., guilt induction and withdrawal of love). Moreover, little attention has been paid to adolescents' perceptions of behavioral control. Given that the previous studies have shown a positive relationship between parental behavioral control and both internalizing and externalizing problems, it is probable that adolescents who are experiencing high levels of behavioral control may perceive such parental practices as intrusive. Thus, one of the objectives of the current study was to explicitly assess whether or not adolescents perceive both types of parental control as indicative of intrusiveness.

Adolescents' perceptions of competence were also examined as an interpretation of parental control. Parental control likely exerts its effects on adolescents through conveying the extent to which parents believe adolescents can handle issues on their own

(Barber, 1996; Pomerantz & Eaton, 2000; Schafer, 1965). Pomerantz and Eaton (2000) reported that even young children described maternal use of control as an indication of their levels of competence. It is likely that adolescents are more apt to view parental control as an indication of their ability to act on their own.

Among these three proposed types of adolescents' perceptions and interpretations of parental control, perceptions of mattering to parents have not been well explored in the parenting literature. Marshall (2001) has stated that self-perceptions of mattering to others are cognitively and affectively charged self-evaluations, which develop through interpersonal interactions. Marshall emphasizes that by having a sense of significance to others, individuals may gain a sense of social relatedness and that their lives have meaning. Empirically, Marshall demonstrated significant positive associations of adolescents' perceived mattering with self-esteem and the meaningfulness of their lives. Parental rejection and control were also found to be negatively correlated with the adolescents' perceptions of mattering to their parents. Given that the period of adolescence, in particular, is characterized as by relational changes with parents and others (e.g., Steinberg, 1990), as well as the development of a cohesive sense of self (Harter, 1999), it is probable that one's sense of mattering to significant others contributes to such inter- and intra-personal changes. Specifically, in the context of parent-adolescent relationships, it may be that the link between adolescents' negative outcomes and parental control is mediated by adolescents' translation of parental control into their perceptions of the extent to which they are significant to their parents. Accordingly, this study examined the extent to which adolescents' perceived mattering to their parents is influenced by parental psychological control and behavioral control.

In accord with Barber's (1996) theory, the empirical support by Barber et al. (1994), Smetana (1988), and Pomerantz and Eaton (2000), age was expected to be significantly related to adolescents' perceptions and interpretations of parental control. As their needs and demands for psychological and behavioral autonomy grow, so do adolescents expectations for autonomy (Feldman & Quatman, 1988). Parental control may be increasingly viewed as having more negative qualities later in adolescence than earlier.

Furthermore, given that available literature suggests that there are differences in parental socialization practices based on the gender of their children (e.g., Ruble & Martin, 1998), it is expected that female and male adolescents may develop different ways of perceiving and experiencing parental control. The effect of gender on adolescents' perceptions and interpretations of parental control may be developed through parents' differential attitudes and beliefs regarding the sex of adolescents. For example, Bumpus, Crouter, and McHale (1995) showed that parents' attitudes toward the gender roles are positively related, over time, to adolescents' involvement in sex-typed behavior. Galambos, Almeida, and Petersen (1990) also reported that early to middle adolescents not only increasingly engaged in sex-typed behaviors, but also held attitudes that correspond to their parents' attitudes. Accordingly, gender effects of adolescents' perceptions and interpretations of parental psychological control and behavioral control were examined in the current study.

Main Questions for the Current Study

Drawing on the past research reviewed, this study addressed the following questions:

Question 1:

Do adolescents perceive and interpret psychological and behavioral control as the same or different? Moreover, do adolescents' perceptions and interpretations depend on levels of control, domain of control, or adolescents' perceptions of legitimate authority?

Question 2:

Are there age-related differences in adolescents' perceptions and interpretations of psychological control and behavioral control?

Question 3:

Are there gender differences in adolescents' perceptions and interpretations of psychological control and behavioral control?

CHAPTER II

Literature Review

Overview

This chapter will review literature on parenting and parent-adolescent

relationships during early to middle adolescence. Given the importance of adolescents

establishing autonomy and independence within the familial context (e.g., Barber, 1996;

Steinberg, 1990), particular attention will be given to the role of parental control in the

transformation of parent-adolescent relationships. First, literature regarding the

importance of parents' support of autonomy will be reviewed. Next, the social domain

theory that emphasizes domain-differentiated interactions between parents and

adolescents will be reviewed. Finally, studies on adolescents' perceptions and

interpretations of parental control will be reviewed as it relates to the different types of

parental control.

Autonomy During Adolescence

Adolescence is marked by a host of changes that distinguish childhood from

adulthood (Elliot & Feldman, 1996). Physical changes associated with the onset of

puberty as well as advances in cognitive functioning and psychological processes, such as

identity development, take place during this period. Adolescents also experience the

transformation of relationships within and outside the familial context. Furthermore,

societies typically recognize such physical and psychological changes that occur during

adolescence, and afford adolescents with more responsibilities and privileges than

younger children are afforded (Elliot & Feldman, 1996; Paikoff & Brooks-Gunn, 1991).

Among these changes associated with adolescence, it has been proposed that the optimal development is determined by the developmental task posed at each of the developmental stages (Erikson, 1950). Research supports the theoretical position that the developmental task during adolescence is to establish autonomy (e.g., Steinberg, 1990). The construct of autonomy has been conceived of having multiple dimensions (i.e., behavioral, cognitive, and affective; Steinberg, 1990; Steinberg & Silverberg, 1986; Zimmer-Gembeck & Collins, 2003). According to Greenberger, and Sørensen's (1974) integrative framework, the ultimate goal for adolescence is to become a psychologically and socially mature individual. They proposed three dimensions that characterize psychosocial maturity: individual adequacy, interpersonal adequacy, and social adequacy. In essence, the first dimension of individual adequacy refers to an individual's capacity to function sufficiently on his or her own. Individuals who are autonomous have a well-defined sense of self (i.e., identity), a sense of control (i.e., self-reliance), and a willingness to work in order to contribute to society (i.e., work orientation). For the second dimension, interpersonal adequacy refers to the capacity to work sufficiently with others, such that individuals need to develop communication skills, trust in others, and role-taking ability. Finally, social adequacy is characterized as the capacity to contribute to social cohesion. Individuals are expected to show willingness to accept and tolerate differences in values and beliefs, and be open to socio-political change.

The theme of personal adequacy or autonomy is particularly salient in the familial context. In general, adolescents undergo a transition both at the intrapersonal and interpersonal levels. Within the intrapersonal level, the development of autonomy requires adolescents to become emotionally and behaviorally independent from their

parents (Lamb, Hwang, Ketterlinus, & Fracasso, 1999; Steinberg, 1990). Cognitive development that takes place in this period facilitates this transformation. With increasingly sophisticated cognitive ability, adolescents are better able to think abstractly and hypothetically. These advances in cognitive capacities likely help adolescents to understand and reconcile issues and expectations held by parents and adolescents. Furthermore, autonomy can be indexed via progression in social responsibility as well (Silverberg & Gondoli, 1996). Within the interpersonal level, autonomy involves the reorganization or reconstruction of previously established parent-child relationships. The challenge for this relational change is to maintain an adequate balance in parent-adolescent relationships while parents foster developmentally appropriate levels of autonomy (Eccles et al., 1993; Silverberg & Gondoli, 1996). For example, a study by Allen, Hauser, Eickholt, Bell, and O'Connor (1994) showed that adolescents whose parents failed to keep a balance of autonomy support and connectedness also exhibited both more internalizing and externalizing problem behaviors than those whose parents maintained a balance. In short, during adolescence, biological, psychological, and social factors converge in shaping adolescents' development (Elliot & Feldman, 1996).

Parents and Adolescents in Relationships

The extent of parents' influence over their adolescents has long been debated in the literature (Collins et al., 2000; Maccoby, 2000). Yet a family has been described as one of the most proximal and important contexts to provide a basis for adolescents' healthy development (Bronfenbrenner, 1977; Maccoby, 1984, 2000). Generally, concordance between socialization theories and research suggests that parents take an important role in promoting adolescents' adopting of social values and facilitating

adolescents' optimal social and emotional development. Barber (1997) and Barber and Olsen (1997) have emphasized that parenting practices in particular aimed at fostering the three dimensions of adolescents' socialization (i.e., connection, regulation, and psychological autonomy) are critical because they meet basic human needs and possibly important sources of human motivation. Deci and Ryan's (1985) conceptualization of fundamental human needs (i.e., intrinsic motivation) entails these similar dimensions such as competence, autonomy, and relatedness. It may be a natural extension to consider that families who provide both the consistent and adequate limits on behavior, while promoting opportunities for adolescents to express their own thoughts and emotions, foster a sense of self-efficacy and competency (Eccles et al., 1997). Likewise, adolescents' experiences of positive emotional connections with their parents afford them secure bases from which they explore and gain new competencies (Eccles et al., 1997; Lamb et al., 1999).

Although the emphasis that theoretical models of socialization place on parent-adolescent relationships varies (e.g., Kindermann, 2003; Steinberg, 1990), the common theme is that parent-adolescent relationships entail a representation of past and present interactions, as well as expectations for the future relationships (Kindermann, 2003; Kuczynski, 2002). Youniss and Smollar (1985) pointed out that parents of adolescents tend to see adolescents' behavior in lights of implications for the future. Attachment theory also emphasizes the adaptive value of parent-adolescent relationships throughout the life span, stressing the importance of the combination of connectedness or sense of security and independence (e.g., Lamb et al., 1999). For example, Fuligni and Eccles (1993) have demonstrated that the tension between parents and adolescents regarding

autonomy issues is related to adolescents' increased tendency to rely on peers. More specifically, when adolescents feel constrained by parents (e.g., given fewer opportunities to express their opinion in the family), they tend to exhibit extreme peer orientation behaviors (e.g., high advice-seeking behavior). Furthermore, research has shown that parents influence adolescents directly and indirectly through other family members (i.e., siblings) (Conger et al., 1997) and others outside of the familial contexts (i.e., peers context) (Scaramella, Conger, Spoth, & Simons, 2002). These results suggest that throughout the life course, parents may continue to influence their offspring.

Parent-adolescent relationships can be compared and contrasted with adolescents' peer relationships as unique, but complementary contexts. Compared with adolescents' peer relationships, parent-adolescent relationships are said to be closed fields, in that biological and legal obligations define the bonds (Collins, Laursen, Mortensen, Luebker, & Ferreira, 1997; Laursen & Collins, 1994). This involuntary relationship precludes the process of selection and termination of these relationships. At the very beginning, parent-child relationships are largely characterized as unilateral relationships, where children have to depend on their parents and parents have authority to make standards and rules that children are expected to follow. As children move into adolescence, parents and adolescents must deal with the inherent power imbalance in order for adolescents to establish autonomy. This relational transformation requires change in the vertical constraints that have defined the position of parents and children. However, the enduring nature of parent-child relationships imposes a challenge for both parents and adolescents when faced with the need to transform to more egalitarian relationships. Because parents and adolescents have established a pattern of control, this likely leads to resistance to

change (Laursen & Collins, 1994). The role of parents in the process of the transformation from unilateral parental authority to the more shared authority is to allow adolescents more self-control (e.g., giving more power to control) (e.g., Maccoby, 1984; Youniss & Smollar, 1985). Parents relinquish their power at the same time they expect their adolescents to exert more self-control. This parents' shifts in control not only need to be motivated by the developmental goal of having their adolescents to develop into independent and psychologically mature individuals (e.g., Kindermann, 2003), but also be shared by their adolescents.

Adolescents' peer relationships, on the other hand, are said to be as open-field relationships, based on voluntary, reciprocal affiliation (i.e., self-selection) built upon their compatibility, feelings of connectedness, and mutuality (e.g., Collins et al., 1997; Kindermann, 2003; Youniss & Smollar, 1985). With peers, adolescents are more open to sharing personal knowledge and engage in activities with common interest (Collins & Repinski, 1994), whereas parents are more likely to maintain the role of consultants for issues that have long-term consequences for adolescents (e.g., educational and occupational decisions) (Collins et al., 1997; Savin-Williams & Berndt, 1990). Through interactions with peers, adolescents not only learn about extrafamilial reality, but also gain skills to manage interpersonal conflicts and disputes (e.g., Savin-Williams & Berndt, 1990). Because peer relationships are said to be horizontal in power balance, the development of peer relationship is more often characterized as fluent for forming and dissolving the bonds as well (Collins et al., 1997).

Stage-Environment Fit Model of Parent-Adolescent Relationships

Eccles et al. (1993) proposed stage-environmental fit theory as a means of

understanding of the gradual shift in parental control to adolescents' self-control.

Emphasis is placed on the need for adolescents to gain more autonomy and control during

adolescence. In the optimal situation, a balance between parental control and adolescent'

autonomy facilitates adolescents making the transition to relative independence and self-

determination (Eccles et al., 1993; Steinberg, 1990). For example, Amato (1989) has

examined the relationship between the promotion of autonomy and social competence

among preadolescents (8 to 9 years old) and middle adolescents (15 to 16 years old). He

found a shift in the parent-child relationships that was associated with social competence

in both age groups. As for the preadolescents, both high parental support and high

parental control were associated with high social competence. In contrast, for the middle

adolescents, high parental support and low parental control were associated with high

social competence. Thus, this study suggests that parenting focusing on psychological

autonomy and control becomes more central in promoting social competence as children

move into adolescence. Within the stage-environment fit framework, Eccles et al. (1993)

specifically hypothesized that negative consequences will occur if parents fail to adjust

their parenting to accommodate adolescents' need for autonomy, for example, by limiting

or undermining adolescents' desire to participate in family decision-making.

Alternatively, the authors proposed that if facilitative and developmentally appropriate

environments are available to adolescents, positive outcomes would result. Thus,

according to this stage-environment fit theory, the degree of the fit between adolescents'

developmental needs and the opportunities afforded for their needs determines their

subsequent adjustments. Adolescents may experience either further difficulties or relative

ease in negotiating a range of issues (e.g., levels of self-esteem and motivation for academic work) (Eccles et al., 1993). This model assumes that one way in which this reorganization of the parent-adolescent relationship becomes successful is through parents' willingness to adjust their parenting behaviors to the needs of adolescents (Eccles et al., 1993).

A number of studies have examined the premise outlined above. They generally demonstrate that parental promotion of autonomy is positively associated with better adolescents' adjustment, whereas failure to support adolescents' autonomy needs is linked to maladaptive outcomes for adolescents. For example, based on self-reports, Eccles et al. (1997) have demonstrated that parental promotion of psychological autonomy is concurrently related to a range of positive outcomes including high attachment to school, better academic performance, low depressed affect, and low problem behaviors. Similarly, Silk et al. (2003) have shown that adolescents' perceptions of parents' support of autonomy, such as responsiveness and involvement are related to overall positive self-evaluation including high social competence and high self-esteem. Longitudinal studies also have revealed similar results, in that parental autonomy granting is related to lower levels of externalizing problems over time, including low substance use, low somatic symptoms, and low delinquent behaviors (Herman et al., 1997). Furthermore, several studies have found a link between parental autonomy granting and adolescents' peer relationships. Lansford, Criss, Pettit, Dodge, and Bates (2003) have shown that parents' and adolescents' joint decision-making is related to low inclination to associate with antisocial peers. Fuligni and Eccles (1993), studying early adolescents' levels of peer orientation behavior, have found a similar result. Adolescents

who perceived their parents as high in support of their own decision-making input also reported low levels of peer advice-seeking and extreme peer orientation behavior, even after controlling for the prior adjustment problems. More importantly, in the one-year follow-up, those adolescents who perceived increases in decision-making opportunities by their parents evidenced the lowest extreme peer orientation behavior, compared with those who reported either little change or decreases in such opportunities.

Consistent with stage-environment fit theory, a number of researchers have also demonstrated that parents' failure to promote adolescents' autonomy is related to negative outcomes, including low self-esteem, low social competence (Silk et al., 2003), high levels of problem behaviors (e.g., Allen et al., 1994), higher inclination to peers (Fuligni & Eccels, 1993), as well as deviant peer affiliations (Brown et al., 1993; Lansford et al., 2003). Likewise, Gray and Steinberg (1999), using a large, ethnically varied sample, have shown that parents who are less supportive of adolescents' autonomy needs tend to have adolescents who exhibit low levels of psychological maturity, low academic competence, and high levels of internal distress. More importantly, research based on both cross-sectional and longitudinal designs has shown that parenting practices that specifically undermine or interfere with adolescents' autonomy needs are consistently related to a range of negative consequences for adolescents, including internalizing and externalizing problem behaviors, low academic performance, and low self-efficacy (e.g., Barber, 1996; Barber et al., 1994; Conger et al., 1997; Garber et al., 1997; Herman et al., 1997). Similarly, observational studies, although limited, have shown that parents' communicative styles, such as inhibiting, constraining, and devaluing adolescents' feelings are related to internalizing and externalizing problems (Allen et al.,

1994; Barber, 1996), low adaptive behavior (Holmbeck et al., 2001), and low levels of

ego development (Hauser et al., 1984). Taken together, these studies confirm the

importance of Barber and colleagues' (2001) recent call for the reexamination of the

more specializing effects of psychological control, such as the differential effects of the

presence of autonomy granting versus the absence of psychological control on the

developmental outcomes in adolescents. Indeed, Silk et al. (2003) recently demonstrated

that the presence of psychological control, which by definition undermines adolescents'

autonomy needs, had more deleterious effects on adolescents than the absence of

autonomy supports.

Autonomy Negotiation and Conflict

The studies reviewed in the previous section provide a general framework for

understanding of the importance of promoting autonomy and the possible negative

consequences for adolescents whose autonomy needs are not supported or hindered.

However, most of those studies do not explicitly examine the quality of parent-adolescent

relationships when the autonomy-granting processes do not proceed with the appropriate

balance between control and support. Research examining the processes and outcomes of

adolescents' autonomy negotiation, suggests that parents' and adolescents' affective

expressions or exchanges are related to the degree of autonomy that adolescents have

granted in the family (e.g., Steinberg, 1990). At heart, adolescents appear to desire their

parents to be highly adaptable and continuously responsive to their autonomy needs with

high levels of support (e.g., Noller, 1994). Adolescents' views of relationships with their

parents appear to rest on the extent to which they can currently exercise control over

themselves compared to what they were previously allowed.

Collins et al. (1997) conceptualized conflict from a social-relational perspective and argued conflict results from the violation of expectations held by parents and adolescents regarding each others' behavior. From this view, the emphasis is placed on a developmental continuity inherent to parent-adolescent close relationships (Laursen & Collins, 1994). As mentioned previously, parent-adolescent relationships are essentially characterized as closed fields. Unlike adolescents' friendships, the bond between parents and adolescents are constrained by the norms and laws and not easily disrupted. Laursen and Collins (1994) suggest that two variables, relationship closeness and stability, determine the extent of adolescents' emotional expression in conflict. Adolescents try to minimize conflict that arises with their friends in order to avoid termination of their friendship. With respect to relationships with their parents, such efforts are not necessary. Accordingly, the discrepancies in expectations and interpretations between parents and adolescents involve more intense emotion. According to Laursen and Collins, the sources of conflict are primary twofold: (a) the extent of departure from the expectations held prior to adolescence and (b) the development of new expectations as a result of children entering into adolescence that may not be congruent with those held by parents or adolescents. Collins (1990), for example, demonstrated that both parents and adolescents had more discrepant expectations regarding autonomy related issues such as changes in responsibility and activities than those in preadolescence.

Smetana and her colleagues (Smetana, 1988, 1989, 1991; Smetana & Asquith, 1994; Smetana & Berent, 1993) have instead focused on conflict from a cognitive-developmental perspective. The authors analyzed the affective consequences of parent-adolescent interactions particularly in terms of levels of discrepancies in their reasoning

when their autonomy negotiation fails to succeed. According to the authors, conflict is assumed to occur when parents' and adolescents' desires to exercise control over particular issues result in a mismatch, whereby each party discerns different legitimacy of authority. Consistent with this position, Youniss and Smollar (1985) pointed out that whereas parents still feel the need to exercise unilateral authority, adolescents increasingly perceive parents' authority as becoming limited to certain areas. This change in view occurs when adolescents increasingly judge various issues more relevant to personal matters, yet parents still judge them as falling under parental regulation (e.g., Smetana, 1988, 1989; Smetana & Asquith, 1994). Specifically, Smetana (1989) demonstrated that reasoning about conflict differed between parents and adolescents. The author found that adolescents were more likely to justify conflict that arose from day-to-day issues, such as chores and appearance, by stating that these issues were personal and independent of parental regulation. In contrast, their parents are more likely to reason that these issues were based on social and conventional appropriateness, thus stressing the need for parental control.

In summary, the current theoretical and empirical approach to autonomy negotiation acknowledges that negative affective expressions between parents and adolescents not only represent the ways in which parents and adolescents deal with mundane issues, but also provide insight into how autonomy is handled within the family context (e.g., Smetana, 1988, 1989; Silverberg & Gondoli, 1996), and the extent to which adolescents have developed autonomy in the family (Smetana, Braeges, & Yau, 1991). Furthermore, according to Smetana and Collins, conflict is not simply the by-product of autonomy negotiation between parents and adolescents, but is likely to serve adaptive

functions (Lamb et al., 1999; Steinberg, 1990). As the gradual transition from unilateral

toward bilateral power occurs, the frequency of conflict between parents and adolescents

is generally assumed to decrease (e.g., Collins, 1990; Smetana & Asquith, 1994; Zimmer-

Gembeck & Collins, 2003).

Social Domain Model of Parent-Adolescent Relationships

As illustrated above, the extent of negotiation of autonomy between parents and

adolescents can be seen in the levels of conflict that result from mismatches in their

reasoning or expectations of issues. One of the problems associated with this view of

parent-adolescent conflict is that conflict can be generated from any kind of issue. The

content of the issues being negotiated or disputed are largely overlooked (Nucci, Killen,

& Smetana, 1996).

Social Domain Theory

Social-domain theory advanced by Turiel (1983) provides a framework for

understanding context specific interactions between parents and adolescents. In essence,

social domain theory assumes that individuals make different forms of judgment based on

their conceptually distinct social understanding, such as moral and conventional concepts.

The proposition is comparable to Piaget's structural model of cognitive development,

where individuals' thought systems are assumed to be organized and coordinated within

distinct sets of knowledge, which Piaget called partial systems or subsystems (Turiel,

1983). Turiel specifically defined the partial systems or subsystems as a domain and

focused on its functions. Turiel emphasized that a domain not only represents distinct

components of knowledge, but also functions to form consistent sets of individuals'

behaviors (e.g., communications and judgment). Individuals are thus, assumed to interact

with their environment with different modes of knowledge or concepts (i.e., domains). Some evidence supporting this premise exists. For example, Turiel (1983) pointed out that young infants have rudimentary forms of distinct knowledge, such as goal–directed activities and mathematical cognition, including part–whole transformation.

According to Turiel and Davidson (1986), the implication of social-domain theory for adolescents' development is threefold. First, children' and adolescents' knowledge involves qualitative differences in complexity of organization within domains, rather than simply gradual differentiation from a unified concept to more differentiated concepts (cf. Kohlberg). Second, age-related changes in knowledge in one domain affect other domains, such that adolescents' increases in understanding of specific issues change the way other issues are dealt with in other domains (Nucci et al., 1996). Third, continuity and discontinuity of progression of cognitive system undergoes reorganization and coordination of specific domains, which leads to the emergence of interdomains. What had been under specific domain becomes separated and now a regulation of subsequent domains (i.e., multifaceted domain). For example, late adolescents were more likely to judge issues involving, such as gender roles (i.e., pursuit of career opportunities for man and women) as having both moral and conventional elements and offered more coordinated answers than early adolescents, who more often provided dichotomous judgments (Turiel & Davidson, 1986). With age, children are assumed to assimilate new social experiences, redefining the boundaries of domains and establishing more distinct boundaries by assigning and incorporating various elements into individuals' existing knowledge.

Social Domain Model of Autonomy Negotiation

Based on the Turiel's (1983) and Turiel and Davidson' (1986) framework, Smetana, Nucci, and their colleagues have further elaborated the theoretical concept of domains and applied it to adolescents' autonomy development. Specifically, the authors proposed the social domain framework of autonomy negotiation, where the development of autonomy represents individuals' establishment of boundaries between what adolescents claim pertains to be a private or personal domain versus other domains (i.e., societal norms and moral concerns). According to this position, conflict stems from adolescents' increased abilities to question parental unilateral authority, reflecting the discrepancies or contradictions between parents' and adolescents' conceptions of the boundaries of domains, which distinguish what issues parents or adolescents should and should not control (e.g., Smetana & Asquith, 1994; Nucci & Smetanta, 1996). Another important proposition of this approach is that although adolescents' claim in redefining or enlarging their personal jurisdiction is associated with the development of autonomy, adolescents' appeals to personal jurisdiction are not unitary or, in other words, uniformly applicable across issues.

Based on the content analysis, numerous studies have examined the contents of parent-adolescent exchanges and demonstrated that adolescents distinguish actions and events/issues into conceptually different categories (i.e., domains) (Hasebe, Nucci, & Nucci, 2004; Nucci & Smetana, 1996; Smetana, 1988, 2000; Smetana & Asquith, 1994; Smetana et al., 1991; Turiel, 1983). Five domains have been identified: moral, conventional, personal, prudential, and multifaceted.

Moral domain. The moral domain refers to actions and events that are prescribed to be wrong, with judgments based on human rights, justice, and obligation, such that

they are framed as "should" or "ought to" independent of societal agreement, regulations, and authority (i.e., punishment and sanctions; Turiel, 1983). Moral issues address and regulate social interactions, direct the ways in which individuals should behave toward each other, and are likely to be generalizable to other settings (Smetana & Turiel, 2003; Turiel, 1983). As such, the moral transgression is also judged across a broad range of children and adolescents as the violation of others' rights, welfare, and fairness (e.g., Smetana, 1988; Turiel, 1983). Research indicates that differences in evaluations of moral issues within dyadic interactions between parents and adolescents are found to be minimal (Hasebe et al., 2004; Smetana, 1988, 1995; Smetana & Asquith, 1994). Indeed, a recent study by Hasebe et al. (2004) showed that there are too little variabilities between parents' and adolescents' judgments regarding moral issues to conduct statistical analysis. A number of extensive studies have identified the issues that fall in the moral domain including, for example, taking money from parents without permission, hitting brothers or sisters, and lying (e.g., Smetana, 1988, 1995; Smetana & Asquith, 1994; Turiel, 1983).

Conventional domain. The conventional domain has been distinguished from the moral domain in that the former involves individuals' understanding of social organization, social rules, and conventions within a specific social or cultural system (Smetana & Turiel, 2003; Turiel, 1983). Turiel's (1983) observation of the developmental changes in conventional concepts illustrates that although moral versus conventional judgments are developed in early age, compared with preadolescence, adolescents gradually come to see conventional issues are more changeable, arbitrary, and less contingent on authority regulation. Thus, according to the author, adolescents are more

likely to view conventional issues from functional perspectives. That is, for adolescents, a form of agreement within a specific group of people, expectations of behavioral conformity to social systems, as well as to culturally prescribed rules and regulations to coordinate social interactions are more characteristic of conventional issues than of moral issues. Studies have shown that adolescents generally employ conventional justifications (i.e., reasoning based on societal regulation and norms) identifying transgressions pertaining to issues such as not doing assigned chores, not talking back to parents, and using bad manners (e.g., Smetana, 1988, 1989; Smetana & Asquith, 1994; Turiel, 1983).

Personal domain. The personal domain, on the other hand, has been identified as inclusive of acts and issues that have consequences only to individuals and thus, are viewed as beyond societal regulation, moral concern (i.e., right or wrong), and authority (e.g., Smetana, 2002). Compared with the moral and conventional domains, which are primarily interpersonal domains and embedded in larger societal systems and conventions, (Turiel, 1983), the personal domain constitutes primarily private behaviors. Thus, individuals' appeals to privacy and personal justification have been seen as reflecting individual attempts to establish the boundary between self and the social world, and attempts to maintain personal agency and psychological development (e.g., Smetana, 2002; Smetana & Turiel, 2003). Although cultural variability in the content of what constitutes the personal domain may exist, studies generally demonstrate that appeals to areas of personal control appear to be universal (e.g., Fuligni, 1998; Hasebe et al., 2004; Smetana, 2002; Smetana & Turiel, 2003). The emergence of the personal domain has been documented in children as young as three years of age, and with age the boundary of personal domains tend to expand (Nucci et al., 1996; Nucci & Smetana, 1996;

Smetana & Asquith, 1994). Some of the examples that have been investigated include choosing how to spend an allowance; sleeping late on weekends; and choosing music, hair style, clothing, and friends.

Prudential domain. The prudential domain consists of issues that are related to safety, or harm to the self/others, comfort, and health. This category includes risk-taking behaviors, such as drug and alcohol use. Conceptually, the moral and prudential issues may in part overlap in that they both involve consequences to others (Tisak & Turiel, 1984). Yet unlike the moral domain, children's and adolescents' judgment of prudential issues tends to be more focused on the consequences of the act upon self or others, whereas the focus of moral issues toward both societal regulations and the consequences (Nucci, Guerra, & Lee, 1991; Smetana & Asquith, 1994; Tisak & Turiel, 1984). For example, adolescents' evaluations of drug use include such comments as "it is wrong or foolish because it harms yourself" (Nucci et al., 1991, p. 843). Prudential issues also differ from those in the personal domain in that personal issues are viewed as primarily harmless and risk free (Tisak & Turiel, 1984).

Adolescents' judgments of prudential issues often depend on their assessment of the degree of harmfulness (Killen, Leviton, & Cahill, 1991; Tisak, Tisak, & Rogers, 1994). Compared with other substance use (e.g., cigarettes, marijuana, or cocaine) alcohol use was judged more often to be a personal choice as opposed to under societal or moral authority regulation (Killen et al., 1991). These studies suggest that adolescents may judge risk-related behaviors differently from adults. Nucci (2001) discussed that personal safety is primarily self-referential and encompass personal elements. For example, research on adolescents' conceptions of substance use indicates a positive

relationship between self-reported drug use and the tendency to evaluating substance use

as a personal choice and as harmful only to the self (Killen et al., 1991; Nucci et al.,

1991). Another factor affecting adolescents' judgments of prudential issues appears to be

their risk assessment, such as cost-benefit calculations. Adolescents may base their

decisions of whether or not they engage in risk-related behaviors by considering the

losses and gains of both engaging or not engaging in such behaviors (e.g., Maggs,

Almeida, & Galambos, 1995). Although adolescents generally view prudential issues as

more contingent on parental authority than personal issues, adolescents judge prudential

issues as up to individuals to a greater extent that did their parents (Smetana & Asquith,

1994).

Multifaceted domain. According to Turiel (1983), the multifaceted domain

represents issues that are either coordinated among multiple domains or the order of

domains are subordinately arranged. Of primary importance for conceptualizing this

domain is understanding that issues people encounter in the everyday situations require

contextual understanding, such that few issues may be judged into one global category.

Rather, judgments would rest on individuals' relative decisions, based on the contexts or

situations, in which the issues are framed (Smetana & Turiel, 2003; Turiel, 1983). For

example, Helwig (1995) asked adolescents to make a judgment regarding two types of

moral issues (i.e., freedom of speech and religion), which were manipulated so that one

group of the participants received the prototypical moral item (i.e., non-conflictual items)

whereas the others were given the items that were contextually varied (i.e., multifaceted

situations such items as conflict with law and equality). The results revealed that those

adolescents who received the prototypical moral items evaluated them more contingent

on the moral principles, viewing the violation of civil rights as wrong more so than those

who received contextually specific stories (e.g., religious practice implicating physical

and psychological harm and inequality). Those who received conflicted items tended to

vary in their responses. For example, the participants were generally less willing to affirm

freedom of religion, when freedom conflicted with physical harm. Thus, this study

suggests that some issues may be more up to individuals' appraisal or understanding of

the situations. People may not consider issues as falling in unitary domain. In studies of

parent-adolescent relationships, researchers have consistently found such issues as boys

wearing an earring, girls wearing heavy makeup, not cleaning one's room, and not

putting one's clothes away as being in the multifaceted domain, judged having both the

conventional and personal elements (e.g., Smetana, 1988, 1995, 2000; Smetana &

Asquith, 1994).

Domain-Differentiated Interactions between Parents and Adolescents

In general, research (e.g., Fuligni, 1998; Hasebe et al., 2004; Smetana, 1988,

2000; Smetana & Asquish, 1994; Smetana et al., 1991) indicates that parents perceive

that the issues that fall into the moral, conventional, and prudential domains should stay

under their legitimate authority. In these domains, parents are likely to perceive that they

have a right to make and enforce rules and should respond to their adolescents'

transgressions according to their judgment. In contrast, parents generally view that

adolescents retain authority in the personal domain and, to lesser extent, multifaceted

domain. Similarly, adolescents generally agree that those issues in the moral,

conventional, and prudential domains are under parental authority, whereas they judge

and expect that those issues in the personal and multifaceted domains are under their own regulation.

Despite this general trend, how issues are defined by parents and adolescents, as well as where they consider the boundaries should be drawn between domains, depend largely on their perceptions of authority. Thus, it is inevitable that any differences in their domain-differentiated conceptions have important implications for subsequent parent-adolescent interactions. In support of this notion, researchers have consistently demonstrated incongruence between parents' and adolescents' perceptions regarding what issues fall into which domains, as well as their conceptions of authority (e.g., Fuligni, 1998; Smetana, 1988, 2000; Smetana & Asquith, 1994). Indeed, the degree and frequency of conflict between parents and adolescents have been found to differ as a function of domain definition (Smetana, 1988; Smetana & Asquith, 1994). For example, Smetana and Asquith (1994), utilizing hypothetical transgressions across several domains, examined both parents' and adolescents' conceptions of legitimate authority, reasoning for their decisions, as well as affective expressions associated with their decisions. The study used a cross-sectional design with adolescents ranging from early-to middle-adolescents (6th-, 8th-, and 10th-graders) and their parents. The findings showed that parents and their adolescents generally agreed that parents retain parental authority over the moral and conventional domains. However, for the prudential and personal domains, parents were more likely to consider themselves having greater authority in making rules and regulating those issues than did their adolescents. Indeed, the adolescents offered more personal justification for their decision (e.g., it is okay because there is nothing wrong with it, and it is okay because it doesn't affect other

people), whereas their parents justified their decision based on the combination of conventional (e.g., it is against the rules and laws and it's important to have order), prudential (e.g., it is unsafe or harmful to the self), and psychological reasons (e.g., family members need to get along and he or she is too young). Furthermore, conflict was more evident around the prudential and multifaceted domains rather than the moral domain. The frequencies of conflict between parents and adolescents revealed that the issues in the personal domain were more often the source of their discussion than those in the prudential domain. The intensity of discussion was found to be slightly stronger for the prudential issues than personal issues. Although the number of domains assessed varies somewhat from study to study, other researchers have found similar results (e.g., Fuligni, 1998; Hasebe et al., 2004). For example, using three domains (i.e., personal, conventional, and multifaceted domains), Fuligni (1998) showed that adolescents are generally less willing to accept parental authority in the domain containing personal elements (i.e., personal and multifaceted domains) than in the conventional domain. Taken together, these studies suggest that parent-adolescent autonomy negotiation is differentiated by domains, where domains that adolescents consider personally relevant appear to be particularly salient to autonomy.

Furthermore, the findings from both cross-sectional and longitudinal studies illustrate the developmental sequence in adolescents' conceptions of legitimate parental authority. Smetana (1988) and Smetana and Asquith (1994) have found that the disagreement with parental authority is greater among middle adolescents than among early adolescents. Similarly, Fuligni (1998) has found a linear trend, such that compared with early adolescents, middle adolescents consistently report heightened conflict with

their parents, less family cohesion, and less willingness to accept parental authority particularly in the personal and multifaceted domains. These findings are also consistent with the recent longitudinal study by Smetana (2000) that shows from early to middle adolescents, adolescents increasingly claim that the personal issues are under their own regulation and feel less obligated to comply with parental authority.

Summary

The studies reviewed in this section illustrate the different modes of authority conceptions that coexist between parents and adolescents (Nucci & Smetana, 1996; Smetana, 1988, 1989, 2000; Smetana & Asquith, 1994; Smetana et al., 1991). That is, the existence of domain-differentiated disagreement and the corresponding conflict over regulation suggest that adolescents may not view their parents as legitimate and regulatory authorities. These studies also suggest that, although adolescents show opposition to complying with parents' authority over personal issues, they clearly separate where parents can have authority (i.e., moral and conventional domains), and thus, where parents can enforce rules and where they cannot (i.e., personal, multifaceted, and prudential domains). Adolescents need autonomy and independence; however, they still need their parents' guidance, particularly concerning issues relevant to morality, social rules, and social systems. In summary, this examination of conflict between parents and adolescents within a domain-differentiated framework provides useful insight regarding three issues: that (a) where parental regulation is "allowed" or "legitimized" from both parents' and adolescents' perspectives; (b) conflict is linked with discrepancies in conceptions of legitimate authority, particularly over the personally relevant issues such as those found in the personal, multifaceted, and prudential domains; and (c) these

perceptions likely change over the course of adolescence (i.e., from early to middle adolescence).

<center>*Type of Parental Control and Domains*</center>

Psychological Control and Behavioral Control

As discussed in the previous chapter, parental control has been found as one of the important parenting dimensions that is consistently identified in the literature. Parental control is behavior that is assumed to be guided by parental attitude and beliefs, reflecting parental needs to instruct and regulate their adolescents in a manner consistent with a particular society or culture (Barber et al., 1994). As a consequence, the central issue in distinguishing parental psychological control and behavioral control has been to address the goals and intentions of parents who exercise control. In brief, psychological control has been defined as parental regulation of adolescents' emotions, feelings, thoughts/idea, and intrinsic values that inhibits adolescents' relative psychological autonomy from their parents (Barber, 1996; Barber & Harmon, 2001). In contrast, behavioral control has been referred to as having a parental focus on regulation of adolescents' behavior and activities without compromising adolescents' psychological autonomy. A growing body of research on parental psychological control and behavioral control, however, explored little beyond the broad theoretical linkages stated by Barber (1996). Researchers tend to simply focus on the direct relationship between the type of parental control and adolescents' adjustment problems. As a result, studies have consistently found mixed results, such that psychological control and behavioral control are both related to internalizing problems and externalizing problems (Barber, 1996; Conger et al., 1997; Eccles et al., 1997; Herman et al., 1997; Krishnakumar et al., 2003;

Manson et al., 1996). In contrast, a longitudinal study by Rogers, Buchanan, and

Winchell (2003) revealed no relationship between earlier parental psychological control

in early adolescence and later internalizing problems.

One way in which this problem can be addressed is to view parental control

within the social domain framework of parent-adolescent relationships that incorporates

adolescents' perceptions of legitimate parental authority in understanding parental

behavior (i.e., practices or styles). For example, Smetana (1995) has demonstrated that

parents identified as permissive and indifferent parental styles made more lax judgments

in defining the boundary of adolescents' personal issues than authoritarian and

authoritative parents. In contrast, authoritarian parents were more rigid and restrictive in

defining the boundary of friendship and multifaceted issues than those in categorized in

other parenting styles. This study also showed that adolescents' perceptions of parenting

styles differed to a large extent from parents' own views. Specifically, there was a

tendency for parents to view themselves more favorably than adolescents viewed them,

such that adolescents perceived their parents as more permissive or more authoritarian

than did their parents.

Utilizing a longitudinal design, Smetana (2000) has further extended the

connection between perceptions of legitimate parental authority and parenting practices,

in particular behavioral control, using a middle class African American sample. The

participants were early to middle adolescents, approximately 13 years old at Time 1 and

15 years old at Time 2 (two data collections over a two year period). Parents' use of

behavioral control was measured as the existence of family rules and the extent to which

adolescents were allowed to make a decision on their own (i.e., family decision-making).

Overall findings indicate that adolescents at Time 1 who viewed parents as having more legitimate authority in exercising behavioral control, yet felt less obligated to comply with them, reported that they had more rules two years later. In other words, the middle adolescents' perceptions of parental behavioral control were predicted by their earlier rejection of parental authority.

This line of study also directs our attention to the importance of considering the perceptions of adolescents. As previously mentioned, focusing on adolescents' perceptions of their parents may be another way to address the issues pertaining to parental psychological control and behavioral control (Pomerantz & Eaton, 2000). Recently, Smetana and Daddis (2002) explicitly mentioned that being able to define a personal area and to control it satisfies an adolescent's psychological needs for autonomy and personal efficacy. Drawing from the previous studies on autonomy negotiation and conflict, Smetana and Daddis proposed that whether or not parental control becomes psychological or behavioral may depend on whether or not parental control is viewed as targeting a domain of adolescent authority (e.g., personal domain). Thus, the authors specified that adolescents' self-reports would be predictive of psychological control whereas parents' reports would not. Furthermore, the authors hypothesized that adolescents who did not agree with parental authority in the personal domain, and perceived their parents were more restrictive, would report that their parents were more psychologically controlling. Alternatively, the authors hypothesized this relationship would not apply to the moral-conventional domain given that adolescents have been found to accept parental authority in those domains. It should be noted that in this study unlike other previous studies, the domains were aggregated into two domains. One

domain was called the social domain, which combined the domains previously separated into the moral and conventional domains. The other domain was called the ambiguously personal domain, consisting of the personal, friendship, and multifaceted issues that previously considered different domains. The analysis presented in this study came from the same sample presented previous section (i.e., a longitudinal design and a middle class African-American sample of early to mid-adolescents). Consistent with their expectations, the finding revealed that adolescents who viewed their mothers as highly restrictive in the personal domain and also felt that their mothers should withdraw authority to regulate the domain, reported that their mothers were more psychologically controlling. In contrast, those adolescents who reported that their mothers were more restrictive in the social domain did not perceive their mothers as psychologically controlling. Furthermore, in support, the results revealed the distinct association between mothers' and adolescents' reports of authority beliefs and perceptions of psychological control. Whereas adolescents' perceptions of psychological control were predictive of their perceptions of mothers' restrictiveness in the personal domain, there was no significant association between mother-reported psychological control and their perceptions of legitimacy of parental authority. Accordingly, Smetana and Daddis (2002) concluded that what adolescents perceive as psychological control may depend on what issues the perceiver feels fall under the personal domain. They also suggested that parents who firmly endorse parental authority over adolescents' lives may be perceived or interpreted as over-controlling and intrusive. Thus, this study suggests that psychological control may not be reliably distinguishing from behavioral control on the basis of parents' interpretation (e.g., Hasebe et al., 2004).

In summary, this section provides the preliminary findings that adolescents' perceptions of parental control are differentiated by adolescents' perceptions of which domains are personally relevant. It is also important that the studies reviewed in this section direct our attention to adolescents' points of view, a distinction typically overlooked by researchers who often presume that the effects of the type of parental control are uniformly applicable to any situations or domains. The findings that adolescents' psychological reactions to parental behaviors are more sensitive indices for predicting adolescents' adjustment also appear to be consistent with the previous findings, where adolescents differentiate and behave according to their understanding of domains. Finally, it is also important to stress that adolescents' growing needs to become autonomous and their desire to make their own decisions (Smetana, 1988, 2000; Smetana & Asquith, 1994) are not necessarily justifiable from their parents' perspectives. Specifically, this preliminary evidence indicates the overlapping characteristics of psychological control and behavioral control in domains adolescents perceive as personal.

Levels of Psychological Control and Behavioral Control: Moderate versus High

Barber (1996) has hypothesized that psychological control and behavioral control are distinct constructs. That is, they are mutually exclusive behaviors. This proposition has been investigated in terms of whether psychological control and behavioral control have distinct correlates, such as internalizing and externalizing problem behaviors in adolescents (Smetana & Daddis, 2002). As a result, there have been a number of studies, in which it has been concluded that adolescents' adjustments are linearly related to both psychological control and behavioral control (e.g., Barber, 1996; Barber et al., 1994;

Pettit & Laird, 2001; Pettit et al., 2001). However, evidence appears to suggest that the linearity assumptions of parental control may not be tenable, particularly for behavioral control. Accordingly, the following section, first behavioral control will be discussed followed by psychological control.

Levels of Behavioral Control

A review of studies on parental control suggests that the absolute positive merit of behavioral control on adolescents' adjustment need to be questioned (e.g., Hasebe et al., 2004) particularly because there may be more specialized effects (Marsh, McFarland, Allen, McElhaney, & Land 2003). There have been a number of studies (Smetana & Daddis, 2002; Pomerantz, 2001; Pomerantz & Eaton, 2000) that indicate that the distinction between psychological control and behavioral control may not be apparent at higher levels. For example, Smetana and Daddis's work pointed out that adolescents' reports of psychological control are associated with high levels of parental restrictiveness, which is comparable to the definition of behavioral control (e.g., setting rules and parent-unilateral decision-making). Pomerantz and Eaton (2000) have shown that higher levels of behavioral control (i.e., helping, checking, and choosing friends) are associated with children perceptions of low competence and low self-esteem. Similarly, adolescents whose mothers exercised behavioral control at high frequency were found to show increased depressive symptoms over time than those whose mothers exercised less behavioral control (Pomerantz, 2001).

Furthermore, contrary to the studies focusing on the linearity of the relationship, studies examining the curvilinear relationship between behavioral control and adolescents' adjustment suggest that behavioral control at a moderate level, rather than

high or low levels, contributes to adolescents' healthy development. Indeed, some

researchers argue that the moderate level of behavioral control keeps the appropriate

balance of autonomy and may communicate positive parental intentions for autonomy

support (e.g., Eccels et al., 1993; Fuligni & Eccles, 1993; Kurdek & Fine, 1994). Both

lower and higher levels of behavioral control also termed as lax control and

restrictive/over-controlling have been considered as an indicative of parental indifference

to adolescents' autonomy and independence needs (e.g., Maccoby & Martin, 1983;

Steinberg, 1990). For example, a cross-sectional study Kurdek, Fine, and Sinclair (1995)

demonstrated that early adolescents' self-regulation problems (i.e., low academic

performance, drug use, and externalizing behavior) lowered sharply at the moderate level

of behavioral control and showed little change at a high level of the control. Gray and

Steinberg (1999) also reported that middle to late adolescents' perceptions of academic

competence were highest at moderate levels of behavioral control (i.e., measured by

monitoring and limit setting) compared with higher levels of behavioral control.

Longitudinal studies examining middle adolescents' engagement in problem behavior

have further shown similar results. Low and high levels of behavioral control (i.e.,

decision making process at home) were linked to higher engagement in externalizing

problem behaviors, even after accounting for previous level of problem behaviors

(Manson et al., 1996). Similarly, Galambos, Barker, and Almeida (2003) demonstrated

that adolescents who experienced high levels of behavioral control showed increase in

externalizing problems over time. In short, although not all studies have shown a

curvilinear relationship between behavioral control and adolescents' adjustments (e.g.,

Kurdek & Fine, 1994), the studies mentioned above at least support that behavioral

control exercised at a high level have negative effects similar to those found for high levels of psychological control.

Furthermore, an examination of the items used to assess the "intrusiveness" factor of psychological control further challenges the theoretical assumption of orthogonalizing between behavioral control and psychological control. The items typically used to assess psychological control identified by Barber (1996) include "my mother insists that I must do exactly as I am told" and "my mother is very strict with me." Similarly, the subscale of the Child's Report of Parent Behavior Inventory (CRPBI; Schafer, 1965) assesses parental intrusiveness (a form of psychological control) with items such as "He/she wants to know exactly where I am and what I am doing," "He/she asks me to tell him/her everything that happens when I am away from home," "He/she is always checking on what I've been doing at school or when I'm out," and "He/she keeps a careful check on me to make sure that I have the right kind of friends." A close inspection of these items reveals that these items reflect parenting practices that control and regulate behavior by setting and enforcing rules and limits. That is, these items typically used and theoretically considered as a central feature of psychological control also correspond to high levels of behavioral control (Barber, 1996; Barber & Harmon, 2001). In short, "intrusiveness" appears to be the common factor for both behavioral and psychological control constructs, in particular when an extreme high level of behavioral control is considered.

High levels of behavioral control may be viewed as negative parenting, and thus comparable to high levels of psychological control as discussed previously (e.g., Smetana & Daddis, 2002). By placing high limits on behavioral autonomy, adolescents may come to perceive behavioral control negatively, such that it may be viewed as an illegitimate

execution of authority, rather than reflecting parental positive intentions, such as guidance and protection from harm or risk (Hasebe et al., 2004). In contrast, adolescents may view moderate levels of behavioral control as an indicative of positive parenting, as has been discussed elsewhere (e.g., Barber, 1996; Maccoby & Martin, 1983). Under adequate levels of parents' direction or supervision, adolescents may perceive that they are allowed to be more flexible and provided with opportunities for self-control and regulation.

Levels of Psychological Control

Contrary to the studies on behavioral control, little attention has been given to examining the effects of different levels of psychological control on adolescents' developmental outcomes (Barber et al., 2001). Researchers generally assume there is linear association between psychological control and adolescents' adjustment (i.e., the more adolescents experience psychological control, the more negative outcomes ensue). It may be inferred from the studies on parental autonomy granting, that lower and moderate levels of psychological control are less detrimental effects on adolescents when items used to assess psychological control are reverse-coded (Barber et al., 2001). Yet the evidence from a recent study (Silk et al., 2003) suggests that this linearity assumption may be speculative rather than conclusive. As stated previously, an obvious feature of psychological control is adolescents' recognition that psychological control is present. Based on a number of empirical studies, Maccoby and Martin (1983) suggested that the strong and powerful effects of love withdrawal often generate anxiety and avoidance behavior even for young children, with long-term aversive consequences. The strong effects of parents' manipulating the tie with their children suggest that the effects of

psychological control at moderate and high levels may not be distinguishable. Adolescents' negative perceptions of psychological control may plateau at moderate levels of the control and there may be little change at higher levels. Furthermore, as Barber et al. (2001) suggested, negative effects of psychological control may be more pronounced when examined in the context of other variables such as the gender of adolescents and specific domains considered under adolescents' personal jurisdiction (Smetana & Daddis, 2002) than when examined adolescents' perceptions alone. Contextual variations in effects of parental control will be discussed in a later section.

Adolescents' Perceptions and Interpretations of Psychological Control

and Behavioral Control

The studies reviewed in the previous sections illustrate (a) the importance of considering the convergence or divergence of adolescents' and parents' perceptions across domains (Fuligni, 1998; Smetana, 1988, 2000; Smetana & Asquith, 1994) and (b) that adolescents' definitions of domain boundaries may distinguish psychological from behavioral control (Hasebe et al., 2004; Smetana & Daddis, 2002). Further, these findings pose a question regarding what kinds of messages are communicated by such parenting. Pomerantz (2001) contends that the critical aspect of defining parental control is how children and adolescents evaluate and judge it. However, the domain model approach to parent-adolescent relationships as well as stage-environmental fit model, assumes that it is parents that should adjust their authority beliefs and parenting to afford more autonomy for their adolescents. For example, Smetana and her colleagues argued that parents' relaxation of authority within the personal domain is critical for adolescents' healthy development. Thus, within their frameworks, little attention has been given to how

adolescents actively perceive and interpret parents' behavior or act on their interpretations, particularly when parents fail to make requisite adjustments. The following sections will provide the rational for assessing adolescents' perceptions and interpretations, followed by the proposed types of perceptions and interpretations that are particular relevant for adolescents.

The importance of assessing adolescents' perceptions and interpretations of parental control comes from two lines of research, which has explicitly focused on (a) adolescents' influences on their parents and (b) discrepancies between parents' and adolescents' reports of parenting in relation to adolescents' adjustment.

In the former line of research, Kuczynski (2002) recently extended the reciprocity of the parent-adolescent relationship, arguing that parents and adolescents are equally agentic in creating their relationships, placing more emphasis on adolescents' influences on parenting. A number of recent studies indeed suggest that taking adolescents' perspectives is crucial in understanding their development. For example, Laird, Pettit, Bates, and Dodge (2003) longitudinally investigated the reciprocal effects of parental knowledge and adolescents' delinquency. They not only demonstrated that low levels of parental knowledge predicted later increases in delinquency, but further showed that high levels of delinquency predicted a decrease in parental knowledge over time. Thus, this study exemplifies the effects of adolescents by presenting how adolescents' high levels of engagement in delinquent behavior could hinder parents' ability to know their adolescents. Furthermore, Marshall, Tilton-Weaver, and Bosdet (2005) specifically focused on the way in which adolescents influence parenting behavior. The authors have shown that the relationship between adolescents' engagement in problem behavior and

lower levels of parental knowledge is mediated through adolescents' higher levels of lying and withholding information from their parents. Longitudinally, less parental knowledge was found to be associated with increases in adolescents' delinquency. In short, these studies together suggest that the influences between adolescents and parents' behavior are likely reciprocal.

The research emphasizing bidirectional relationships between parents and adolescents can be extended to the second line of research that focuses on the discrepancies in perceptions between parents and adolescents. The latter position views that adolescents' perceptions of parenting are not necessarily shared by their parents. Low to moderate correlations often found in the literature between parents' and adolescents' reports evidence that they contain important information regarding adolescents' development (e.g., Carlson, Cooper, & Spradling, 1991; Collins, 1991; Feinberg, Howe, Reiss, & Hetherington, 2000; Gaylord, Kitzmann, & Coleman, 2003). Several researchers suggest that adolescents' reports of parenting are more influential in predicting their adjustment than those made by parents (Feinberg et al., 2000; Gaylord et al., 2003). In fact, studies on parental control have shown that low to moderate correlations between adolescent-reported and mother-reported psychological control and behavioral control items (i.e., $r = .19$ to $.32$) (Pettit et al., 2001; Smetana & Daddis, 2002). Further, adolescents' reports of parental control were more predictive than parental reports of adolescents' adjustments, such as externalizing and internalizing problems (Pettit et al., 2001). Although there may be several competing explanations for these results including differential attribution (e.g., Brody, Arias, & Fincham, 1996), expectations (e.g., Collins, 1991), interpretations of issues and events (e.g., Smetana &

Asquith, 1994), as well as roles in the family (Carlson et al., 1991), these studies suggest

that separate analyses for adolescents' reports are crucial in examining the effects of

parental control on adolescents' development.

Accordingly, this study examined how adolescents perceive and interpret parental

psychological control and behavioral control. By integrating the domain specific

approach to parental control, focusing on adolescents' perceptions and interpretations

may further reveal autonomy-salient issues unique to this period of development, which

may have implications for both antecedents as well as consequences of parenting for

adolescents' development. Specifically, three areas of adolescents' perceptions are

proposed to be relevant, including perceptions of intrusiveness, mattering to parents, and

competence. Theoretical and empirical rationales for this selection will be given in the

following sections.

Perceptions of Intrusiveness

Barber and Harmon (2001) have stated that intrusiveness is the higher order

characterization of parental psychological control that encompasses various levels of

parental behavior as well as family interactions, which is assumed to play a core role in

interfering with adolescents' overall self-development. This definition of psychological

control, however, makes the construct rather ambiguous and the measurement of the

construct often rests on researchers' own judgment. In fact, researchers often adapt either

the scale developed by Barber (1996) (e.g., Pettit & Laird, 2001; Pettit et al., 2001), the

CRPBI by Schafer (1965) (e.g., Galambos et al., 2003; Garber at al., 1997; Holmbeck et

al., 2001; Krishnakumar et al., 2003; Shulman, Collins, & Dital, 1993; Smetana &

Daddis, 2002), or use the combination of the two measures or other (s) (e.g., Conger et

al., 1997; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Eccles et al., 1997; Rogers et al., 2003; Soucy & Larose, 2000), a use a reverse coding of autonomy granting (e.g., Gray & Steinberg, 1999; Herman et al., 1997), or otherwise rely on the statistical techniques to select items (e.g., Barber et al., 1994; Silk et al., 2003) in order to assess psychological control. Typically, several dimensions identified are used, which includes intrusiveness, love withdrawal, guilt induction, coercive parenting, constraining, and personal attack. Intrusiveness has rarely been treated as a single factor, but been aggregated with other factors to index psychological control. Thus, there has been little investigation regarding the extent to which adolescents perceive parental psychological control as intrusive behavior. In accordance with Barber's (1996) conceptualization of psychological control, it may be important to single out the intrusiveness construct to assess the extent to which adolescents actually perceive parental control as intrusive.

With respect to behavioral control, a review of studies on behavioral control illustrates a rather complex picture regarding the measures of the construct. As defined previously, behavioral control refers to parental practices aimed at guiding, instructing, and regulating adolescents' behavior. Many studies, however, use multiple measures for assessment, including a monitoring scale by Brown et al. (1993). By definition, monitoring refers to parents' actions and activities that encompass such as tracking and surveillance adolescent's activities, which corresponds to one dimension of behavioral control. However, this monitoring scale measures parents' knowledge about their adolescents' whereabouts and activities (Kerr & Stattin, 2000; Stattin & Kerr, 2000) and also refers to parents' desire to know about their adolescents (Brody, Dorsey, Forehand, & Armistead, 2002). As recent studies by Kerr and Stattin (2000) and Stattin and Kerr

(2000) have demonstrated, the monitoring scale does not reflect what researchers believe it measures. Instead, the results revealed that the monitoring scale reflects parents' current knowledge that was mostly informed by adolescents' own disclosure (Kerr & Stattin, 2000; Stattin & Kerr, 2000), which is one facet of adolescents' information management strategies (Marshall et al., 2005). Thus, studies that have used the monitoring scale muddied the study of behavioral control, calling for further examination.

In summary, given the complexity of the subject, this study limits the definition of behavioral control to parental practices or behaviors that specifically target the control and regulating of adolescents' behavior. Furthermore, as previously mentioned, higher levels of behavioral control appear to have similar qualities to psychological control, such that it may include intrusive parental acts. Finally, given that the moderate levels of behavioral control have been found to be related to rather positive and adaptive outcomes for adolescence (e.g., Gray & Steinberg, 1999), it may be that behavioral control is viewed as intrusive only at the highest level of the control. Accordingly, it is expected that adolescents may perceive moderate levels of behavioral control relatively positively, whereas higher levels of behavioral control may be viewed as intrusive, similar to how adolescents likely perceive psychological control.

Perceptions of Mattering to Parents

Little explicit empirical attention has been paid to the predictive relationship between specific parental behavior and adolescents' perceptions of mattering to their parents. Rosenberg and McCullough (1981) have originally conceptualized perceptions of mattering as individuals' judgment of the self that are comprised of four dimensions:

whether he/she is (a) the object of concern or attention, (b) important, (c) dependent, and (d) an ego-extension to others. The object of concern and attention is the self-perceptions that one's actions are noticed or recognized by others. Importance entails such perceptions of the extent to which he or she is relevant to others. Dependence contains the feelings of the extent to which others count on and rely on his or her. Ego-extension is one's conviction that he or she constitutes a part of others' life and that others have an emotional investment in his or her (Taylor & Turner, 2001).

This definition of mattering implies that the emotional rewards of individuals' experiences are likely derived from their social relationships, which have impacts on individuals' emotional and psychological well-being. Rosenberg and McCullough (1981) argued that perceived mattering is rooted in direct, reciprocal relationships with others and is fundamentally different from one's mere reflection of others' actions and behaviors (i.e., perceived self). The feeling of whether or not others may hold favorable opinions toward one's self reflects desire for approval. Thus, that adolescents are not receiving parents' approval, for example, does not necessarily mean that they do not matter to their parents.

Several researchers also differentiated perceived mattering from self-esteem. Whereas perceived mattering refers to the perception of inferred significance of the self, self-esteem is one's evaluative attitude of the described self (Marshall, 2001; Rosenberg & McCullough, 1981). Thus, individuals with high perceived mattering mean that they recognize that their actions are being noticed and relevant to others' concerns (Schieman & Taylor, 2001). In the literature, perceived mattering has been described in similar terms, such as connectedness (e.g., Taylor & Turner, 2001), attachment, and

belongingness (Baumeister & Leary, 1995), appearing to be a fundamental human need or innate propensity (Rosenberg & McCullough, 1981), as well as an important source of motivation and behavior.

This global theoretical approach to perceived mattering has not, however, incorporated functional aspects of the construct, such as how perceived mattering operates in the specific dyadic contexts or at what stage of development individuals become more likely to be influenced by and/or conscious about the feelings of mattering to specific others.

Marshall (2001) has recently reconceptualized perceived mattering as an individual's psychological tendency to judge the self as significant to specific others, focusing more on functions of mattering in the specific relational contexts. Recently, Mak and Marshall (2004) outlined a more comprehensive framework for understanding the processes involved in maintaining and refining perceptions of mattering. According to their framework, perceived mattering arises from both intrapersonal and interpersonal processes. In terms of intrapersonal processes, individuals first need to evaluate the quality and quantity of the behavior directed to the self from specific others. For interpersonal processes, the recursive and selective evaluation of the intended behavior from the specific others infers and confirms the extent of the self as being significant to them. The model implies that the extent to which mattering can be inferred varies across relationships and is based on a specific person and the specific relationship in which they engage (Mak & Marshall, 2004; Marshall, 2004).

Few studies have examined developmental differences in perceived mattering (Mak & Marshall, 2004; Marshall, 2001; Rosenberg & McCullough, 1981). Nevertheless,

perceived mattering may be a particular salient factor influencing adolescents (Rosenberg & McCullough, 1981; Schieman & Taylor, 2001). Rosenberg and McCullough (1981) suggested that mattering is especially low during adolescence because their role in the family has yet to be established. It may be because families play a central socializing role (Schieman & Taylor, 2001), as adolescents develop autonomy, role conflict with their parents triggers discord and likely decreases feelings of mattering. The study by Schieman and Taylor (2001) suggests that negative aspects of family relationships, such as conflict may compromise adolescents' perceptions of mattering to their parents. Similarly, qualitative analyses by Marshall and Lambert (2004) suggest that inability to fulfill one's social role in the family may also be an important factor affecting one's perceptions of mattering. Because evaluation of perceived mattering involves a self-verification process, those adolescents who are unsuccessful in establishing new roles in the family may experience difficulties in transitioning from childhood to adolescence.

Although only limited numbers of studies are available, a relationship between adolescents' perceived mattering to their parents and their adjustment has been reported. For example, using a large number of middle to late adolescents, Rosenberg and McCullough (1981) found associations between low perceived mattering to parents and a range of adjustment problems, such as depressive, anxiety, and delinquent behavior. Using more precise measures for assessing mattering, Marshall (2001) has recently demonstrated that adolescents' self-reported perceived mattering is significantly positively correlated with global self-worth and psychological well-being among middle and late adolescents. Furthermore, specifically examining the type of parenting related to adolescents' perceived mattering to their parents, Marshall found that those adolescents

who reported low perceived mattering to their parents also reported their parents were less accepting and supportive, and highly rejecting and controlling. There empirical findings appear to support the concept of mattering in adolescents that their perceived mattering is important affective responses that may result from attribution from the specific others incorporated into their self-evaluation.

In summary, as reviewed previously, studies on parental control generally indicate that parental control functions three ways in adolescents: (a) as communicating approved levels of independence and self-government, (b) affording supervision, as well as (c) regulating the bonds between parents and adolescents. Accordingly, it can be assumed that adolescents perceive parental control as an important piece of information from which inferences can be drawn about the extent to which their parents care about them or they are important to their parents. The studies reviewed in this section are certainly suggestive of this, yet add to our understanding of the paradoxical relationship between parents and adolescents during this period. That is, on one hand, adolescents need more freedom and independence from their parents. On the other hand, they still need emotional and psychological connection to their parents. Those adolescents who perceive their parents as either psychologically or behaviorally controlling may come to perceive that their parents do not care about their feelings and that they do not matter their parents.

Perceptions of Competence

Perceived competence has been considered as both the basis and representation of one's self-system, reciprocally bounded with others' validation and evaluation toward the self (e.g., Harter, 1999; Markus, Cross, & Wurf, 1990). Parental socialization practices such as control and autonomy support has been assumed to be one critical factor for

fostering adolescents' sense of self-empowerment, self-efficacy, and positive self-evaluation (e.g., Deci & Ryan, 1985, 1987; Eccles et al., 1997; Eccles et al., 1993; Harter, 1999; Pomerantz & Eaton, 2000). Adolescents' judgments of their competence or perceived competence become a particularly important driving force in defining the self (Harter, 1999). Greenberger and Sørensen's (1974) conceptualization of psychosocial maturity also includes the feeling of competence as one of the important dimensions of individual adequacy. In short, perceived competence has been theoretically viewed as a vehicle for the development of autonomy.

The opinions and expectations that are communicated between parents and children likely affect their relationship quality, and in the long run, development. Adolescents may increasingly view parental psychological control and behavioral control as an important source of information amidst many sources important to consolidation of self (e.g., Pomerantz & Eaton, 2000). Studies aimed at investigating the origin of children's perceived competence, for example, suggest children's perceptions of their competence may be influenced by their parents' socialization attitudes, such as parents' expectations and beliefs about their children's abilities (e.g., Phillips, 1987). Recent studies by Pomerantz and Eaton (2000) and Pomerantz (2001) specifically examined the possible effects of parental control on children's and adolescents' perceptions of their levels of competence, as well as influences on development. Their work suggests that from middle childhood to early adolescence, children and adolescents may increasingly perceive parental control as an indication of their competence.

For example, in a cross-sectional study, Pomerantz and Eaton (2000) have demonstrated that among school-aged children ranging from second to fifth graders, older

children (fifth graders) tended to perceive parents who exercised behavioral control as intending to regulate and control them. Specifically, the qualitative analyses revealed that when asked for parents' intentions, children reported that their parents' intrusive behaviors (e.g., offering help without asking) were indications that parents thought they were incompetent. The older children, when compared with younger children, were more apt to interpret their parents' acts as due to their incompetence and evaluated themselves as incompetent as well. It is important to note that in this study, vignettes depicting parents exercising behavioral control (i.e., decision-making, and helping with or supervising homework, and choice of friends) were used to examine children's perceptions and interpretations of parental control. By directly interviewing children, children could freely express what they actually perceived and interpreted. Unlike the majority of studies using self-reports, this study demonstrated that children's experiences in the family may not be solely due to their passive reactions to parenting. Rather, young children actively interpret their parents' behavior, as they experience it as indicative of parental beliefs, intentions, and expectations (Pomerantz & Eaton, 2000).

Further, a longitudinal study by Pomerantz (2001) has found relationships between pre-adolescents to early-adolescents' self-evaluation of competence and parental control. The author hypothesized that during the transition to adolescence, children's evaluation of their own competency may become a critical factor in predicting their psychological adjustment (i.e. depressive symptom). In this study, instead of using hypothetical vignettes, mothers' reports of daily use of control as well as adolescents' report of frequencies of control were analyzed. The findings indicate that adolescents' depressive symptoms were more evident among those adolescents who reported high

maternal behavioral control and also perceived lower self-competence than those whose parents were low to moderately behaviorally controlling and whose perceived competence was high. Furthermore, this relationship was only significant for adolescents' reports of maternal control, not for mothers' self-reports. Thus, this study suggests that adolescents' perceptions of competency may serve as an important factor that mediates the relationship between parental control and adolescents' adjustment.

Although little empirical attention has been given to explicitly examine the relationship between parental psychological control and adolescents' perceived competence, Barber and his colleagues (1996; Barber & Harmon, 2001) suggested psychologically controlling parents (e.g., enmeshed and intrusive) may inhibit adolescents' opportunities to demonstrate competence. Because experiencing efficacy in the exercise of personal control is central to perceptions of own competence, adolescents who feel their control is constrained or lacking are less likely to evaluate themselves as competent. The extant empirical findings appear to be supportive of this proposition. Numerous studies have already shown the relationship between parental psychological control and self-related constructs as well as with adjustment problems, such as low self-competency, low self-esteem, low self-concept, internalizing and externalizing problem behaviors (e.g., Barber et al., 1994; Conger et al., 1997; Garber et al., 1997; Gray & Steinberg, 1999; Krishnakumar et al., 2003; Silk et al., 2003). Garber et al. (1997) in particular have documented that the link between maternal psychological control and adolescents' depressive symptoms is mediated by self-worth.

The developmental change in perceived competence may be, in part, attributable to a maturational factor. Preadolescents are likely to see parental control as having both

positive and negative intentions (Pomerantz & Eaton, 2000). As they become more cognitively mature, however, adolescents' role taking abilities improve. Coupled with their increased social experiences, adolescents may also pay more attention to the intentions and beliefs behind others' overt behaviors (e.g., Pomerantz & Eaton, 2000). Older adolescents may also come to see others' behaviors by making casual attributions (Pomerantz & Ruble, 1998).

In summary, based on the studies reviewed, it is assumed that adolescents' perceived competence is contingent upon their experiences, as well as their views of parental control. It is also likely that adolescents may increasingly think that they are less capable of acting on their own when their parents behaviorally and psychologically over-regulate, particularly when adolescents expect more autonomy.

Age Differences: Early versus Middle Adolescence

Age is a critical variable to consider when examining the link between types of parental control and adolescents' perceptions and interpretations. Barber et al. (1994) hypothesized that the negative effects of parental psychological control are increasingly pronounced during adolescence, given that the parental acts violate boundaries that define the self from others. However, the authors viewed behavioral control as playing a positive role, such as helping their adolescent to engage in social activities in a more competent manner. Moreover, the specific age differences in the effects of psychological control and behavioral control have not been explicitly stated (i.e., early, middle, and late adolesccnce).

However, as the studies reviewed in the previous sections indicate, research generally supports that the possibility of developmental changes in perceptions of both

psychological control and behavioral control in adolescents (e.g., Best, Hauser, & Allen, 1997; Pomerantz, 2001). For example, Walker-Barnes and Manson (2001), utilizing a short-term longitudinal study (3 weeks) and a growth curve modeling technique, demonstrated a positive relationship between parental psychological control and increased delinquent activities among middle adolescents. Specifically, the authors found that parental psychological control was not only correlated with all indices of gang related activities, and that these effects were still strong after controlling for negative peer influences. Similarly, Fuligni and Eccles (1993) have also documented a longitudinal relationship between perceived change in parental behavioral control and extreme peer orientation from 6th to 7th grade. Those adolescents who perceived higher behavioral control when they were younger increased in peer orientation one year later. These studies collectively suggest that adolescents may view psychological and behavioral control in increasingly negative ways, even over a short period of time.

Another source of evidence that supports age differences in adolescents' perceptions and interpretations of parental control comes from the studies on parental authority and conflict as discussed previously. First, both cross-sectional and longitudinal studies examining discrepancies in parents' and adolescents' conceptions regarding legitimate parental authority have consistently shown age-related differences (e.g., Smetana, 1995, 2000; Smetana & Asquith, 1994). From early to middle adolescence, adolescents increasingly refute parental authority particularly in those areas that they consider personal (Fuligni, 1998) and report feeling less obligated to comply with parental authority (Smetana, 2000).

Second, age-related differences in conflict between parents and adolescents have been well researched (e.g., Steinberg, 1990). A meta-analysis on conflict conducted by Laursen, Coy, and Collins (1998) showed a linear effect of age on conflict, at least through middle adolescence. In particular, the authors found that negative affect associated with conflict increases from early to middle adolescence. The authors discussed this increase in adolescents' negative emotional responses to their parents in terms of their greater demand in autonomy that typically coincide during early to middle adolescence.

In summary, these studies indicate that early to middle adolescence may be the best period for investigating the effects of parental psychological control and behavioral control. In particular, as early adolescents attempt to establish some autonomy, they begin to define a range of issues as falling under the personal domain (e.g., Smetana, 1988, 2000; Smetana & Asquith, 1994). This appears to continue to increase as they move into middle adolescence (e.g., Fuligni, 1998). Accordingly, it is assumed that middle adolescents may perceive both psychological control and behavioral control more negatively than do early adolescents.

Gender Differences in Adolescents' Perceptions of Parental Control

Another variable that may affect the relationship between types of parental control and adolescents' perceptions is the gender of adolescents. Barber et al. (2001) reviewed the studies that specifically examined the effects of gender of children and adolescents on parental psychological control. Although the numbers of studies are still limited, the authors suggest that there may be gender differences in adolescents' experiences of parental psychological control. The thirteen studies reviewed include both

self-reports by children and parents and observations, with participants ranging from preadolescents to late adolescents (age ranging from 7 to 18 years). The authors found that in nine of the thirteen studies, there were significant gender differences in reported psychological control. Seven of these, which were based on children's self-reports, indicate that male participants tend to report higher levels of psychological control than do female participants. In contrast, in two studies that used children's self-reports and observations, the result showed that females tended to experience more psychological control than did males. The rest of studies, which used both children' and parents' self-reports, showed no significant differences as a function of the gender of children.

Others studies that were not included in the above review appear to show some consistencies in trends that male adolescents may be more susceptible to parental psychological control than female adolescents. Conger et al. (1997) have found that, based on a longitudinal design, the relationship between parents' and siblings' use of psychological control and depressed mood in early to middle adolescents is more evident in male adolescents than in female adolescents, even after controlling for the prior levels of depressive symptoms. Rogers et al.'s (2003) study indicates a similar pattern, such that male adolescents who experienced more psychological control also tended to engage in more problem behaviors. Precisely why male adolescents are more likely to be affected by psychological control has not been clear. Nevertheless, because male adolescents tend to expect more autonomy, it is likely that male adolescents are influenced to greater extent by parental psychological control when their expectations are hindered. Accordingly, it is assumed that in general, male adolescents may view parental psychological control more negatively than do female adolescents.

Although the studies reviewed above did not include behavioral control, several lines of studies suggest developmental and gender differences in adolescents' perceptions and interpretations of behavioral control. First, as alluded to in the previous chapter, the source of adolescents' differential perceptions may originate in differential socialization practices based on gender roles (e.g., Crouter, Manke, & McHale, 1995; Freeman & Newland, 2002). A review of studies by Ruble and Martin (1998) illustrates that from early on, parents appear to encourage sex-typed behavior. Similarly a meta-analysis by Lytton and Romney (1991) on gender differences in socialization indicates that parents in the Northern America samples generally encourage sex-typed activities. Ruble and Martin (1998) suggest that although parents' typical interactions may be the same for boys and girls, the patterns of contingencies may differ for male and female children (e.g., praise, encouragement, and criticism). Other studies also indicate different relationship patterns based on parental beliefs regarding adolescents and gender roles. For example, Bumpus et al. (1995) have shown a link between parents' attitudes toward gender roles and adolescents' involvement in sex-typed behaviors over time. Specifically, female adolescents whose mothers held traditional gender role attitudes were more involved in stereotypical feminine household chores than those whose mothers were less traditional. The same authors (2001) have further demonstrated a connection between mothers' gender role attitudes and their specific parenting practices. Mothers of adolescents with less traditional attitudes were found to grant more autonomy than mothers who held more traditional attitudes.

Secondly, parents' attitudes and practices corresponding to gender stereotypes may communicate gendered expectations for behavior to their children and thus may

have long-term implications for children's development. Ruble and Martin's (1998) review of studies illustrates that boys are in general given more freedom and less supervised by adults (e.g., allowed to be away from home and play in street) than girls, who are more encouraged to be dependent on adults (e.g., responded to and interrupted more quickly by parents). Indeed, Pomerantz and Ruble (1998) examined the everyday interactions between mothers and their preadolescent children and showed that mothers of girls tended to employ behavioral control only (e.g., helping, monitoring, and decision making), whereas mothers of boys tended to use the combinations of both behavioral control and autonomy granting. This differential pattern in maternal use of behavioral control and autonomy granting was related to girls' tendency to take more responsibility for their failure than did boys. In short, the studies reviewed above suggest that parents' restrictive attitudes and behaviors toward female adolescents may have different developmental consequences. Specifically, the gender differentiated socialization practices in a family context may lead adolescent females to show greater tolerance for parental behavioral control.

Finally, research on adolescents' and their parents' expectations for behavioral autonomy complements the above findings suggesting that male adolescent may also expect more behavioral autonomy than female adolescents (Feldman & Rosenthal, 1991; Feldman & Wood, 1994). Although these studies are limited in number, Fuligni (1998) found that female adolescents reported later behavioral autonomy than did male adolescents. For instance, Feldman and Quatman's (1988) study showed that early female adolescents reported significantly later expectations for going out date than did male adolescents.

To summarize, female adolescents may see overall parental behavioral control less negatively than do male adolescents. Female adolescents may become to view parental behavioral control less negatively than do male adolescents only when exercised at low to moderate levels, given that female adolescents, in concordance with gender roles, are socialized to expect less behavioral autonomy than male adolescents and are encouraged to engage in gender-typed behavior (Galambos et al., 1990; Ruble & Martin, 1998). However, as Pomerantz and Eaton (2000) and Pomerantz and Ruble's (1998) work suggests that this may differ with age and may perhaps depend on the levels of control. At higher levels of control, female adolescents may perceive behavioral control more negatively than when they are younger (Smetana & Daddis, 2002). In contrast, as the studies reviewed suggest, male adolescents may see behavioral control as equally negative regardless of its levels. It is because boys are generally allowed behavioral autonomy more and earlier than girls, behavioral control likely affects male adolescents' perceptions and interpretations of their parents.

Overall, the studies are generally supportive of gender differences in perceptions and interpretations of parental psychological and behavioral control in adolescents. The results from the studies on parental control, parental socialization attitudes, as well as autonomy expectations were found to differ based on the gender of children and adolescents. These findings support the idea that whereas male adolescents may be more susceptible to psychological control, both male and female adolescents may perceive higher level of behavioral control equally negatively.

CHAPTER III

The Present Study

A recent trend in examining the specific effects of parental control on adolescents' developmental outcomes still leaves several questions unexplored. A recent review of adolescents' autonomy development points out the need of investigating the processes involved in either facilitating or impeding the development of autonomy (Zimmer-Gembeck & Collins, 2003). The key issue for further understanding of the effect of parental control is to examine its links to adolescents' own reflective processes of self development. That is, research is needed to examine how adolescents understand, assimilate, or incorporate their parents' behaviors into their sense of self. On the basis of transactional models of parent-adolescent relationships, the primary objective of the current study was to explicitly investigate early to middle adolescents' perceptions and interpretations of two types of parental control: psychological control and behavioral control. Three types of adolescents' perceptions and interpretations of parental control were examined: intrusiveness, mattering, and competence.

Available evidence suggests that adolescents' perceptions and interpretations of parental behavior are more predictive of their development than are their parents' reports of their behavior (Pettit et al., 2001; Smetana & Daddis, 2002) and likely to have more impact on issues salient to adolescents' autonomy. To test the effects of parental psychological control and behavioral control on adolescents' perceptions of competence, intrusiveness, and interpretations of mattering, this study utilized vignettes based on Barber and his colleague's (1994, 1996, 2001) conceptualization of psychological control and behavioral control.

Furthermore, social-domain theory guided this study (e.g., Smetana, 1988; Smetana & Daddis, 2002; Smetana & Asquith, 1994; Turiel, 1983). To examine adolescents' domain-differentiated perceptions and interpretations of parental control, two domains were selected a priori: the personal and prudential domains. The selection of the personal domain was based on the previous studies, where adolescents' judgment of personal issues corresponds to the development of autonomy, and discrepancies between parents' and adolescents' legitimate authority beliefs were consistently evident and also increased from early to middle adolescence. The prudential domain was selected based on evidence that suggests issues related to health and safety, such as alcohol and drug uses, are more likely to be judged personal issues by adolescents than by preadolescents. Nucci (2001) mentioned that the matters of safety and health have objective and obvious purposes with which adolescents' parents should to be concerned. However, adolescents tend to engage in risk-related activities, suggesting that adolescents are less likely than their parents to view parents as legitimate authorities in the prudential domain. Thus, adolescents' perceptions and interpretations of parental control regarding prudential issues are expected to reflect autonomy-salient issues as well. However, the personal domain is more consistently perceived by adolescents as a domain of which they exercise legitimate authority than the prudential domain. Thus, although these domains reflect autonomy salient issues, there is still sufficient difference to allow a comparison.

Furthermore, age and gender differences in such perceptions and interpretations have been suggested and were included in the current study (Feldman & Rosenthal, 1991; Feldman & Wood, 1994; Fuligni, 1998; Pomerantz & Eaton, 2000; Smetana & Asquith, 1994).

The hypotheses associated with this inquiry were as follows:

Hypotheses

Hypothesis 1:

Adolescents' perceptions and interpretations (i.e., perceive parental intrusiveness, mattering to parents, and adolescents' competence) were expected to differ by type of parental control (i.e., psychological versus behavioral). Overall, behavioral control was expected to be perceived as less intrusive, indicative of more mattering to their parents, and interpreted as indications of more competence than psychological control.

Hypothesis 2:

Differences in perceptions and interpretations of psychological and behavioral control were expected to be moderated by levels of control, authority domains, and adolescents' perceptions of legitimate authority.

2a: Specifically, moderate levels of behavioral control were expected to be less problematic than high levels of behavioral control (i.e., less intrusive, more mattering to parents, and more competence). Both moderate and high levels of psychological control were expected to be similar to high levels of behavioral control. It was expected that this pattern of differences would be evident in the personal domain and less so in the prudential domain.

2b: This interactive effect (Hypothesis 2a) was expected to be exaggerated when the adolescent perceive that the domain is one in which they (not

their parents) retain legitimate authority (Control type by Level by Domain by Authority perception interaction).

Hypothesis 3:

Adolescents' domain-differentiated perceptions and interpretations of psychological and behavioral control were expected to differ by age.

3a: Because older adolescents, compared to younger adolescents, are more likely to view both personal and prudential issues as legitimate domains of adolescent authority (i.e., rejecting parental authority), the interactive effect of control type by level by domain on adolescents' perceptions and interpretations of parental control (Hypothesis 2a) was expected to be exaggerated for $10^{th}/11^{th}$ graders compared to $7^{th}/8^{th}$ graders (Control type by Level by Domain by Grade).

Hypothesis 4:

Adolescents' perceptions and interpretations of psychological control were expected to differ by gender, such that male adolescents would perceive psychological control (irrespective of level) as more intrusive, indicating mattering less to parents, and as indicating less competence than female adolescents.

4a: Thus, the expected interaction for control type by level by domain may not be as pronounced for male adolescents compared to female adolescents (Hypothesis 2) (Control type by Level by Domain by Gender interaction).

CHAPTER IV

Method

Overview of Design of Study

This study employed a quasi-experimental design, using hypothetical vignettes to examine three between-subject variables and three within-subject variables across three dependent variables (adolescents' perceptions and interpretations of intrusiveness, mattering to parents, and competence). The three between-subject factors consisted of grade (early adolescents $7^{th}/8^{th}$ graders vs. middle adolescents $10^{th}/11^{th}$ graders), adolescents' gender (female vs. male), and perceptions of legitimate authority. The three within-subjects variables included types of parental control (psychological vs. behavioral control), the level of control (moderate vs. high), and two authority domains (personal and prudential). An empathic fantasy measure was included as a covariate, in order to control individual differences in susceptibility to over-identification with hypothetical characteristics. Preceding the primary study, two pilot studies were conducted to examine the reliability and validity of the independent and dependent measures.

Pilot Study I

Study Objective and Sample Characteristics

The purpose of the pilot study was to establish reliability and validity of the independent and the dependent measures. The independent measures, which manipulate types of parental control, the level of control, and authority domains, yielded a total of 8 vignettes. In order to assess the properties of the measures, three groups of raters were recruited, including expert judges ($n = 5$; developmental scientists and graduate students), parents of adolescents ($n = 5$), and undergraduate students ($n = 11$) who were enrolled in

the introductory psychology courses. The experts and parents were asked to independently judge all vignettes to determine whether the difference in levels of parental control could be distinguished. Undergraduate raters were asked to (a) evaluate the degree of realism and believability of the scenarios in order to establish the veridicality of the measures and (b) rate the nine items accompanied with the vignettes to assess the reliabilities of the three dependent variables.

Participation for undergraduate students was limited to younger than 20 years old in order to approximate the target population that the subsequent study intends to measure. Specifically, five students were 18 years old or younger and seven students were either 19 or 20 years old. Participation in the study was voluntary and the undergraduate students received extra credits for participation.

Procedure

For the developmental experts and parents of adolescents, recruitment of participants was based on snow-ball sampling. For undergraduate students, the flyer was posted on the psychology department's bulletin board and interested individuals contacted the researcher. In compliance with IRB guidelines, the participants who were 18 years old or younger provided both the signed youth assent forms (signed by themselves) and the research exposure permission form (signed by their parent or legal guardian).

Materials

Stimuli. As noted, the study stimuli consisted of 8 vignettes (see Appendix A). The vignettes were designed to assess how adolescents perceive and interpret parental control and were generated using Pomerantz and Eaton's (2000) vignettes as examples.

These vignettes describe hypothetical interactions between "parents" (mother and father) and an adolescent. The use of aggregated "parents" as a referent was based on previous studies that showed adolescents' perceptions of psychological control and behavioral control did not differ as a function of the gender of parents. (e.g., Eccles et al., 1997; Herman et al., 1997; Silk et al., 2003). For instance, Barber (1996) and Barnes and Farrell (1992) have shown that the relationship between adolescents' separate reports of mothers' and fathers' use of psychological control, behavioral control, and their adjustment problems (e.g., internalizing and externalizing problems) are similar in strength among early to middle adolescents. Conger et al.'s longitudinal (1997) study also indicates comparable associations between adolescents' separate reports for maternal and paternal psychological control in predicting adolescents' self-confidence. Accordingly, this study utilized the combined term "parents" as a referent for assessing parental psychological and behavioral control.

Psychological control. Of total eight vignettes, four vignettes assessed psychological control. The scenarios were written to reflect two dimensions of psychological control: (a) invalidating feelings and (b) guilt induction (Barber, 1996; Barber & Harmon, 2001; Barber et al., 1994). According to Barber (1996), invalidation of feelings involves parents' discounting, misinterpreting, or assigning negative values to their adolescents' feelings or decisions. For example, invalidation of feelings includes parents behaving as though they know what adolescents are thinking and/or feeling. Psychologically controlling parents are also described as using guilt induction in attempts to evoke sympathy by for example, enumerating all of the things they have done for adolescents, playing the role of martyr, or continually blaming their adolescents for

problems. In addition to these two dimensions of psychological control, levels of psychological control (moderate and high) were manipulated to assess the effects on adolescents' perceptions and interpretations of psychological control.

Behavioral control. A total four vignettes assessed behavioral control, which tap the following three dimensions of behavioral control: (a) monitoring, (b) limit setting, and (c) enforcement of rules and discipline. Monitoring indicates such parental practices as supervising and checking on adolescents' activities (e.g., Fuligni & Eccles, 1993). By setting limits and enforcing rules and discipline, parents ensure that adolescents obey parents' directions (e.g., Barber et al., 1994). As with psychological control, levels of behavioral control were manipulated.

Authority domains. Two authority domains, personal and prudential domains were also manipulated. The personal domain refers to the issues considered by adolescents to have consequences only to the actors (themselves) and judged beyond societal or parental regulations as well as beyond moral concern (e.g., choosing a friend, how to spend allowance money, and sleeping late on weekends). For this study, the selection of a friend was chosen to index the personal domain given that adolescents increasingly spend more time with friends and their relationship becomes more stable and solidified during this period (e.g., Collins, 1990; Youniss & Smaller, 1985). Smetana and Asquith (1994) showed that across adolescence friendship selection is increasingly viewed as a personal issue, legitimately regulated by the adolescents, rather than a domain requiring parental regulation.

The prudential domain measures the extent to which individuals' acts affect their own as well as others' safety, health, and well-being. Issues categorized in this domain

often include risk-related activities (e.g., Smetana, 1988; Smetana & Asquith, 1994). This study used a scenario in which the adolescent attempts to go to a party where parents suspect that alcohol may be involved. Previous studies have shown that friendship selection and alcohol exposure are highly representative issues of their respective domains (Hasebe et al., 2004; Smetana, 1998, 1995; Smetana & Asquith, 1994; Turiel, 1983).

Measures

Manipulation check: Moderate vs. high levels of control. The experts and parents independently evaluated the eight vignettes to determine whether moderate vs. high levels of parental control were distinguishable. They assessed each vignette using a 3 point response scale (1 = *low*, 2 = *moderate*, and 3 = *high*). The anchor for low levels of control was intentionally included to examine whether participants made a clear distinction between levels of control.

Veridicality of the vignettes. The four items assessed the extent to which the scenarios are (a) realistic, (b) believable, (c) similar to their own experience with parents, as well as (d) the answers they provided were compatible to their own perceptions of what would occur if the events actually happened (reverse coded) (see Appendix G). All items were rated on a 5-point scale ranging from 1 to 5 (e.g., "1 = *not at all realistic* to 5 = *very realistic*") with the higher values indicating higher levels of veridicality. For undergraduate students only, open ended questions followed each question to elicit the participants' opinions and view-points, if any.

Reliabilities of dependent measures. Undergraduate participants also rated nine items accompanying the vignettes (see Appendix B). The participants were instructed to imagine themselves in each hypothetical scenario.

Three items assessed *perceptions of intrusiveness*, the extent to which the participants perceive the hypothetical parental behaviors as intrusive. Intrusiveness has been conceptualized as one of the major characteristics of psychologically controlling parents (Barber, 1996; Barber & Harmon, 2001). The items were generated based on the combination of descriptions of intrusiveness in the existing measures (Barber, 1996; Schaefer, 1965; Silk et al., 2003) (e.g., "If my parents did this, it would mean that my parents want to control whatever I do"). The items were rated on a 7-point scale (1 = *agree strongly* to 7 = *disagree strongly*), with a scale created from the mean of the three items. Higher values indicate higher levels of perceived intrusiveness.

Three items assessed *perceptions of mattering to parents*, the extent to which the participants perceive the hypothetical parental behaviors as indicating mattering to parents. The items were adapted from the Mattering to Others Questionnaire (MTOQ) (Marshall, 2001). (e.g., "If my parents did this, it would mean that my parents feel I am important to them"). Each item was rated on a 7-point scale (1 = *agree strongly* to 7 = *disagree strongly*), with a scale created from the mean of the three items. Higher values represent higher levels of adolescents' perceived mattering to parents. Marshall (2001) has performed a systematic construct validation of this measure and demonstrated that an adequate internal consistency, construct validity, and discriminant validity using high school to college samples. For example, the author showed Cronbach's alphas for the

participants' fathers and mothers ranging from .89 to .95 and no substantive overlap with global self-esteem scale (SEQ; DuBois et al., 1996) (r = .25 to .38).

The three items for *interpretations of competence* were generated based Greenberger and Sørensen's (1974) self-reliance scale, one of the nine self-report subscales of the Psychosocial Maturity Inventory (PMI) (Greenberger, Josselson, Knerr, & Knerr, 1975; Greenberger & Sørensen, 1974), which has well-established psychometric properties. Greenberger and Sørensen (1974) describe self-reliance is one dimension of autonomy and therefore represents ones' feelings of competence. For this study, the items were written to reflect the degree to which adolescents interpret the hypothetical parental behavior as indicating adolescents' autonomy-related competence (e.g., "If my parents did this, it would mean that my parents think I can make good decisions by myself"). Each item was rated on a 7-point scale (1= *agree strongly* to 7= *disagree strongly*), with a scale created from the mean of three items. Higher values indicate higher levels of perceived competence.

Results and Discussion

Manipulation check: Moderate vs. high levels of control. The concordance rate between the averaged responses across the raters and the intended levels were first examined by examining frequencies and mean responses. For the vignettes intended to depict high levels of control, agreement across four vignettes ranged from 80 to 100%, whereas for the moderate levels of controls, it was from 40% to 90%. In all cases, the mean and modal ratings were consistent with the intended level of control. Overall, these results indicate that manipulations of moderate vs. high levels of control are acceptable and no modifications were necessary for the primary study.

Veridicality of the vignettes. The mean ratings of the four items was 3.78 (SD =

.74) for expert/parent and for 3.89 (SD = .34) for undergraduate judges. Separate analysis

for the item by type of judge indicates that the contents of vignettes reflect the everyday

interactions between parents and an adolescent fairly well: for realism, M = 3.70 (SD =

.67) for expert/parent, M = 3.64 (SD = 1.03) for undergraduate judges; for believability,

M = 4.50 (SD = .71) for expert/parent, M = 4.73 (SD = .47) for undergraduate judges.

With respect to similarity in experiences, similar levels of agreement were obtained from

both expert/parent (M = 3.44, SD =1.59) and undergraduate judges (M = 2.45, SD = .93),

though undergraduate students evaluated the vignettes somewhat less similar to their own

experience with their parents. Nevertheless, both expert/parent (M = 3.33, SD = 1.21) and

undergraduate judges (M = 4.73, SD = .47) indicated that their responses to the vignettes

were compatible with their perceptions of what would occur if these events happed.

Overall, these results demonstrate that the vignettes are valid and similar to what parents

and adolescents experience in everyday situations.

Reliabilities of dependent measures. Internal consistency of the dependent

measures was examined for each dependent measure for each vignette, resulting in a total

of twenty-four reliability analyses (3 dependent measures x 8 vignettes). The

intrusiveness measure showed the acceptable levels of reliability (Cronbach alphas

ranged from .61 to .92). However, the measure for mattering to parents was sometimes

unreliable, with alphas ranging from .26 to .89). Similarly, the alphas for the competence

measure (ranging from -1.16 to .86) indicated a similar problem with reliability. Because

of the repeated measures on the dependent variables, the problematic items were

identified by examining the item-total statistics and the pattern of the results across the

vignettes. Item 3 (competence) and 4 (mattering) were found to show consistent low correlations with the total variance and were therefore dropped from the scale (see Appendix B).

Pilot Study II

Study Objective and Sample Characteristics

The purpose of the second pilot study was to establish adequate reliabilities for the dependent measures. Based on the results from the first pilot study, five new items (two for mattering to parents and three for competence) were added to 7 items that were retained in the first pilot study. Thus, a total of 12 items were examined in this study (see Appendix C).

Eleven undergraduate students were further recruited with the same criteria as the first pilot study, consisting of four students who were 18 years old or younger and seven who were either 19 or 20 years old.

Dependent Measures

Intrusiveness. All three intrusiveness items were retained and were included in the second pilot study. All dependent measures were evaluated with the same 7-point scale used in the first pilot study.

Mattering to parents. Two additional items were selected from the Mattering to Others Questionnaire (MTOQ) (Marshall, 2001) (e.g., If my parents did this, it would mean that my parents notice my feelings).

Competence. Three additional items were adapted from the Rosenberg Self-Esteem Scale (Wylie, 1989) (e.g., If my parents did this, it would mean that my parents are not satisfied with me).

Results and Discussion

The same item analyses as the first pilot study were repeated. Cronbach's alphas for the intrusiveness measure were again acceptable, raging from .81 to .94. Thus, all three items were used in the primary study. For both mattering to parents and competence measures, the reliability was unacceptable, with Cronbach's alphas ranging from .37 to .88 and from .45 to .95, for mattering to parents and competence, respectively. Inspections of the item-total statistics across the vignettes revealed that for mattering to parents, item 6 contributed little to the total variance. The deletion of the item resulted in improvement of alphas ranging from .61 to .97.

For the competence measure, item 3, 4, and 5 were found to be problematic showing low correlations with the total-item variance. The deletion of these three items resulted in increase in the alphas ranging from .70 to .99. Although two items per scale may not be optimal, given that these two items were also found to be reliable in the first pilot study, only these two times were included in the primary study.

To summarize, the results from the first and second pilot studies led to a total eight items that will be used in the primary study (i.e., three items for intrusiveness, three for mattering to parents, and two items for competence measure, see Appendix D).

The Primary Study

Participants

A total of sixty-seven adolescents, consisting of 32 7th/8th graders and 35 10th/11th graders who reside in a Midwestern city and its surrounding municipalities participated in the study. The number of participants was determined by power analysis for three

independent variables with the expectation of a moderate effect size (.20), alpha set at .05 and power at .80 (Cohen, 1988).

Participants' age ranged from 12 to 17 with the mean age of 14.25 years (SD =1.66). Fifty-two percent (n = 35) of the participants were girls with the mean age of 13.97 years (SD = 1.58), whereas 47.8 % (n = 32) were boys with the mean age of 14.56 years (SD = 1.72). The grade by gender breakdown showed that slightly more girls were included in both grades (53.1 % for 7th/8th and 51.4 % for 10th/11th for girls).

The participants were predominantly from well-educated Caucasian families. A majority of the participants (95.5 %) self-reported as being White or from a Northern European ethnic background and 4.5 % identified themselves either Latino/Latina or "other". Furthermore, adolescents reported that 68.7% of mothers and 71.2 % of fathers had completed at least college/university education. Among those who had completed college/university education, 46 % of mothers and 35% of fathers were reported to have completed graduate or professional school.

Sixty-six percent of participants came from two parent families and 12 % lived with either mother and step-father or step-mother and father. Approximately a quarter of the participants (22.4%) reported that their living situation was different from others (e.g., lived with a single parent; spend with mother weekdays and with father weekends). With respect to the number of siblings in the family, a majority of the participants reported to have at least one sibling in the family (97%). Fifty percent of the participants had one sibling and 22. 4% said two siblings (range = 0 to 13, M = 2.27, SD = 2.43).

Procedures

Adolescents in 7th/8th and 10th/11th grade were targeted for participation, via

invitations posted in the university electronic news, bulletin boards at various places

where either parents of adolescents and/or adolescents are likely to visit, and through

personal connections (i.e., snowball sampling). The interested individuals contacted the

researcher and information packages were either mailed to their home or given to the

referent (based on participants' preference), providing parents with information about the

study. The packets included the purpose of the study, consent/assent forms to be signed,

brief instructions, preaddressed stamped envelopes, as well as the questionnaire. The first

portion of the questionnaire consisted of the vignettes, the corresponding sets of

questions, as well as other scales of interest. The second portion included a brief

demographic profile and the covariate measure (i.e., empathic fantasy instrument). Active

consent procedures were used in which parents received letters of information and were

asked to provide signed consent for their adolescents' participation. Adolescents signed a

separate assent form. Of the108 study packets distributed, 67 were returned (62 %). Of

the 38% that were not returned, 70.7% ($n = 29$) were provided to adults who indicated

they knew adolescents who might be willing to participate. It is assumed that these

packets were not distributed. The overall participation rate, thus, is estimated as 84.8%.

In order to ensure that the participants' responses are not influenced by the order

of vignettes, five sets of counterbalanced vignettes were created (see Appendix A) by

using a random number and order generator that is available online

(http://www.random.org/). These were then randomly distributed to participants with

17.9 % (n = 12) of the participants receiving either version 1 or 2, 20.9 % (n = 14)

version 3, 19.4 % (n = 13) version 4, and 23.9 % (n = 16) version 5.

Following completion and return of the study packet, the adolescents were

provided with an honorarium of $10 worth of movie passes, gift certificates, or a check

by mail. The questionnaire took about half an hour to complete.

Order Effects

Because five sets of vignettes were created and distributed to the participants, one

way analyses of variance (ANOVAs) were conducted to examine order effects. The

results showed no significant differences in responses based on the different order of

vignettes (Fs ranged from .02 to 1.20, ps > .05).

Materials

Study stimuli. Given that the results from the first pilot study provided sufficient

evidence for manipulations of moderate vs. high levels of control and veridicality of the

vignettes, no modifications were made (see the first pilot study for the detail of the

vignettes).

Measures

Based on the results from the first and second pilot studies, a total eight items

were selected to assess adolescents' perceptions and interpretations of parental control in

the primary study (see Appendix D). Because the detail of the items and scale

information for the dependent measures were provided in the previous section (the first

and second pilot studies), the following section focuses primarily on descriptions of the

independent measures.

Perceptions of intrusiveness. The mean of three items assessed the extent to which adolescents perceive the hypothetical parental behaviors as intrusive. The internal consistency for this measure ranged from .67 to. 81 (M = .73).

Perceptions of mattering to parents. The mean of three items were adapted from the Mattering to Others Questionnaire (MTOQ) (Marshall, 2001) assessing the extent to which adolescents perceive the hypothetical parental behaviors as indicating mattering to parents. Cronbach's alphas ranged from .67 to .84 (M = .77).

Interpretations of competence. The mean of two items assessed the degree to which adolescents interpret the hypothetical parental behavior as indicating adolescents' autonomy-related competence. The items were adapted from Greenberger and Sørensen's (1974) self-reliance scale (a ranged from .79 to .95) (M = .87).

Demographic information. Participants provided their grade ($7^{th}/8^{th}$ or $10^{th}/11^{th}$) and gender (female or male), as well as demographic information (see Appendix E).

Perceptions of legitimate authority. A total of 11 items were selected from the Ideal Control Index (Hasebe et al., 2004) and the Legitimate Parental Authority measure (Smetana & Asquith, 1994). The Ideal Control Index, a subscale of Parental Authority Index (PAI) assesses adolescents' perceptions of who (parents, adolescent, or both) should make decisions about particular domains, rather than who does make decisions (Hasebe et al., 2004). This scale is comparable to Smetana and her colleagues' the Legitimate Parental Authority measure that is intended to assess beliefs about parental authority (e.g., Smetana & Asquith, 1994; Smetana & Daddis, 2002) (see Appendix F).

This item selection was based on (a) the previous study by Hasebe et al. (2004) that demonstrated distinct factor loadings on the intended domains (i.e., personal and

prudential domains) and adequate internal consistencies within the domain, as well as (b)

equivalence to items in previous studies that have been empirically shown as particularly

representative of the domains of current interest (e.g., Smetana, 1988; Smetana &

Asquish, 1994; Turiel, 1983). Examples of items for the prudential domain are "smoking

cigarettes," "skipping class or school," "who to be friends with," and "driving with teens

who are new drivers". All items was rated on a 5-point scale, reflecting unilateral

adolescents to joint control to unilateral parental control (1 = *I should be the one to*

decide this without having to discuss this with my parents to 5 = *My parents should be*

able to decide/tell me what to do about this without discussing it with me). Three items

for the personal domain were dropped due to low reliability. Thus, the mean of 3 items

for the personal domain (α = .58) and 5 items for the prudential domain (α = .83) were

calculated to assess adolescents' perceptions of legitimate authority for each domain,

with higher values reflecting adolescent authority, as opposed to parental unilateral

authority (all items were reverse coded).

Empathic fantasy. Because hypothetical vignettes were used, individual

differences in the tendency to identify with the hypothetical characters were included in

analysis as a covariate (see Appendix G). This measure is one of the four dimensions of

an empathy scale developed by Davis (1980). Davis had demonstrated that the fantasy

measure is unrelated to either self-esteem or other individuals' levels of social

functioning (Davis, 1983). Specifically, a total of six empathetic fantasy items assessed

the extent of individuals' tendency to transpose themselves into the feelings and

behaviors of fictional characters in movies, books, and plays (e.g., "It seems like I feel

the feelings of the people in the stories I read or hear") (Davis, 1980). Participants rated

each item on a 5-point scale (1 = *does not describe me well* to 5 = *describes me very well*). Although Davis demonstrated adequate internal consistency, construct validity, and discriminant validity for this measure, three items were dropped due to low reliability found in the current sample. The mean of the resulting three items comprised the scale with higher number reflecting higher levels of empathic fantasy ($\alpha = .58$).

CHAPTER V

Results

Plan of Analysis

In order to test the hypotheses of interest, descriptive statistics and correlations were first computed for diagnostic purposes. This were followed by a multivariate approach to hierarchical multiple regression, as suggested by Judd and McClelland (2001). In this approach, within–subject differences are assessed by constructing weighted dependent variables reflecting each hypothesis, as can be seen in equation (1) below. Each observation is labeled as Y_{hi} where the i refers to subject and h refers to an order of observation. δ_h is a weight to be applied to h^{th} observation within each participant. These within-subject contrasts eliminate the problem of non-independent observations.

(1)

$$W_i = \frac{\sum_h \delta_h \, Y_{hi}}{\sqrt{\sum_h \delta^2_h}}$$

For example, differences on intrusiveness scores between two control types are represented by a difference score computed by subtracting individual scores on intrusiveness in one control type from the scores in the other control type, which is divided by a square root of 2. Standardized regression coefficients, therefore, reflect an interaction between the within–subject variable and the independent variable. Specifically, for testing the hypotheses 1 and 2a, one-sample t-tests were calculated in

which the contrast coded dependent variable is tested against zero (in this case, there is no between subject factor). For testing the hypothesis 2b, 3, and 4, the weighted dependent variables that reflect a 3-way interaction were regressed on the between subject factors (such as adolescents' perceptions of legitimate authority, grade, and gender) in order to test 4-way interactions. Following the t-tests or regressions testing each hypothesis, paired t-tests were expected to probe the interactions. Specifically, four t-tests were examined as follows: (a) moderate versus high levels of behavioral control, (b) moderate versus high levels of psychological control, (c) moderate levels of behavioral control and moderate levels of psychological control, and (e) high levels of behavioral control and high levels of psychological control. If the hypothesized pattern is present, there will be significant differences between moderate versus high levels of behavioral control and between moderate levels of behavioral control and psychological control. The other comparisons should be non-significant. Furthermore, probes for testing conditionality or adolescents' legitimacy of authority perceptions, grade, and gender will include additional paired-t tests where appropriate.

All analyses were conducted for each dependent variable and the results are presented as the following order: intrusiveness, mattering, and competence. Due to the exploratory nature of this research, an alpha level of .10 was used to determine significance.

As a final note, it was proposed that empathic fantasy would be included as a covariate in order to statistically eliminate the individual differences in susceptibility to over-identification with hypothetical characteristics. However, because the assumptions

of homogeneity of slopes could not be met, empathic fantasy was not included in hypothesis testing.

Initial Analysis

Descriptive Statistics

Descriptive statistics for the study variables are presented in Table 1. As shown, both dependent and independent variables demonstrate sufficient variability, although there was some restriction of range. Specifically, all of the continuous variables had slight ceiling effects, and the two dependent variables of intrusiveness and competence did not reach the upper limits of the possible range. Some skewness and kurtosis were also evident, with the greatest skewness being -.88 for both the intrusiveness measure and authority perceptions in the personal domain. For kurtosis the greatest values were 1.16 and -1.14 for the intrusiveness measure and authority perceptions in the prudential domain, respectively. Given none of these measures depart to significant degree from the normality, no transformations were performed.

Inspections of the means indicate that adolescents in this sample tended to view parental control within the vignettes as moderately intrusive. They also tended to interpret control as meaning that they would matter moderately to their parents and indicative of somewhat lower levels of competence. Furthermore, these adolescents were more likely to perceive issues in the personal domain as being under their jurisdiction whereas jurisdiction for prudential issues was seen as being shared with their parents.

Zero-order Correlations

Intercorrelations among the study variables are presented in Table 2. As expected, the dependent variables were significantly intercorrelated. Intrusiveness was negatively

correlated with both mattering, $r(67) = -.45$, $p < .05$ and competence, $r(67) = -.64$, $p < .05$, suggesting that adolescents who perceive parental control as more intrusive were also more likely to see parental control as indicating that they matter less to parents and indicating that they were less competent. Furthermore, mattering was positively associated with competence, $r(67) = .65$, $p < .05$, such that those who interpret parental control as indicating they matter less to their parents were more likely to view parental control as indicative of less competence.

Of the independent variables, only grade and authority perceptions in the personal domain were significantly correlated, $r(67) = .40$, $p < .05$, suggesting that $10^{th}/11^{th}$ graders judged personal issues more under their own jurisdiction than did $7^{th}/8^{th}$ graders.

The results from the correlations between the dependent and independent variables show that perceptions of intrusiveness and mattering to parents were significantly and positively associated with grade, $r(67) = .24$, $p < .05$, and, $r(67) = -.28$, $p < .05$, respectively. That is, $10^{th}/11^{th}$ graders viewed parental control as more intrusive and indicative of mattering less to parents than did $7^{th}/8^{th}$ graders.

Lastly, competence was significantly correlated with the following three measures: gender, $r(67) = .26$, $p < .05$; grade, $r(67) = -.47$, $p < .05$; and authority perceptions in the prudential domain, $r(65) = -.21$, $p < .10$. These results indicate that boys tended to perceive parental control as more indicative of competence than did girls, and $10^{th}/11^{th}$ graders viewed parental control as less indicative of competence than did their younger counterparts. Finally, those adolescents who perceived parental control as more indicative of competence were more likely to see themselves as having less

Table 1

Descriptive Statistics of Study Variables

Variable	M	SD	Minimum	Maximum	Possible Range
Dependent variable					
Intrusiveness	4.87	1.02	1.71	6.57	1.00 to 7.00
Mattering	4.68	.98	2.21	7.00	1.00 to 7.00
Competence	3.28	1.22	1.25	6.33	1.00 to 7.00
Independent variable					
Gender[a]	Girls = 35	Boys = 32			
Grade[a]	7th/8th = 32	10th/11th = 35			
Authority perception in personal domain	4.34	.62	2.33	5.00	1.00 to 5.00
Authority perception prudential in domain	2.92	1.10	1.20	5.00	1.00 to 5.00

Note. ns ranged from 65-67.

[a]Categorical variable, effect coded −1 for females and for 7th/8th grade.

Table 2

Intercorrelations among Study Variables

Variable	1	2	3	4	5	6	7
Dependent variable							
1. Intrusiveness	-						
2. Mattering	-.45**						
	(67)						
3. Competence	-.64**	.65**					
	(67)	(67)					
Independent variable							
4. Gender	-.18	-.01	.26*				
	(67)	(67)	(67)				
5. Grade	.24*	-.28*	-.47**	.02			
	(67)	(67)	(67)	(67)			
6. Empathetic fantasy	.10	-.10	-.04	-.04	-.03		
	(67)	(67)	(67)	(67)	(67)		
7. Authority perception in personal domain	.04	-.03	-.14	.07	.40**	-.10	-
	(67)	(67)	(67)	(67)	(67)	(67)	
8. Authority perception in prudential domain	.08	.01	-.21†	.05	.14	-.14	.16
	(65)	(65)	(65)	(65)	(65)	(65)	(65)

Note. Sample sizes are provided in parentheses.

$^{\dagger}p < .10.$ *$p < .05.$ **$p < .01.$

authority in the prudential domain than those adolescents who saw it as less indicative of competence.

<div align="center">Hypothesis Testing</div>

Hypothesis 1: Main Effect of Control Type

Hypothesis 1 predicts that psychological control is perceived and interpreted more negatively than behavioral control irrespective of levels and domains of control, such that adolescents would perceive and interpret psychological control as more intrusive, less mattering, and less indicative of competence than behavioral control.

Intrusiveness. The results of the one-sample t-test revealed that adolescents' perceptions and interpretations of intrusiveness did not significantly differ between psychological control ($M = 4.89$, $SD = 1.10$) and behavioral control ($M = 4.85$, $SD = 1.09$), $t(65) = .46$, $p > .10$. Thus, the hypothesis for intrusiveness was not supported. Although Hypothesis 1 was not supported, there were main effects of level, $t(64) = 5.45$, $p < .05$ and of domain, $t(65) = 1.71$, $p < .10$, indicating that high levels of parental control ($M = 5.18$, $SD = 1.20$) were evaluated by adolescents as significantly more intrusive than moderate levels of control ($M = 4.56$, $SD = 1.02$). Likewise, parental control exercised in the personal domain ($M = 4.95$, $SD = 1.09$) was perceived as more intrusive than parental control exercised in the prudential domain ($M = 4.79$, $SD = 1.06$).

Mattering. There was a significant main effect of control type, $t(64) = -2.1$, $p < .05$. As expected, adolescents perceived and interpreted psychological control ($M = 4.56$, $SD = 1.18$) as meaning that they mattered less to parents than when parents in the vignettes exerted behavioral control ($M = 4.80$, $SD = .96$). However, inspections of the mean values indicate that adolescents in this sample evaluated both types of control

Table 3

Results from One-Sample T-tests Examining the Effect of Control Type on Adolescents'

Perceptions and Interpretations of Parental Control

Dependent variable	One-Sample T-test			
	t	df	Mean difference	95 % CI of difference
Intrusiveness	.46	65	.07	-.23 to .36
Mattering	-2.05*	64	-.32	-.64 to -.01
Competence	.87	64	.17	-.22 to .56

Note. The dependent variable reflects the within subject differences between

psychological control and behavioral control, which was tested against zero.

$^{†}p < .10.$ $*p < .05.$ $**p < .01.$

somewhat positively.

Additional analyses showed that there were main effects for level, $t(64) = -5.76$, p < .05 and domain, $t(64) = -5.54$, p < .05. Specifically, high levels of control ($M = 4.42$, $SD = 1.12$) were perceived as meaning less mattering to parents than moderate levels ($M = 4.94$, $SD = .96$). Similarly, parental control in the personal domain ($M = 4.45$, $SD = 1.12$) was judged as meaning that they mattered less to parents than when control was exercised in the prudential domain ($M = 4.92$, $SD = .94$).

Competence. Contrary to the hypothesis, the main effect of control type was not significant, $t(64) = .87$, $p > .10$. Psychological control was not evaluated by adolescents as more indicative of competence ($M = 3.35$, $SD = 1.41$) than behavioral control ($M = 3.22$, $SD = 1.25$). As before, additional analyses were performed to examine main effects of level and domain. There was a significant main effect of level, $t(64) = -11.34$, $p < .05$ and domain, $t(64) = -3.10$, $p < .05$. These results indicate that high levels of control ($M = 2.66$, $SD = 1.42$) were viewed as indicative of less competence than moderate levels of control ($M = 3.90$, $SD = 1.19$), and parental control exercised in the personal domain ($M = 3.13$, $SD = 1.26$) was seen as indicative of less competence than when parental control is exercised in the prudential domain ($M = 3.44$, $SD = 1.30$).

Summary of the findings. Hypothesis 1 was supported only for mattering to parents. Nevertheless, additional analyses revealed main effect of level and domain for all dependent variables, indicating high levels of control and parental control exercised in the personal domain were consistently viewed as more intrusive, indicating less mattering to parents, and were indicative of less competence than moderate levels of control and control exerted in the prudential domain, respectively.

Hypothesis 2-a: Three-Way Interaction between Control Type, Level, and Domain

It was expected that adolescents' perceptions and interpretations of psychological

and behavioral control would be conditional on level and domain. Specifically moderate

levels of behavioral control exercised in the personal domain in comparison to high levels

of behavioral control and both moderate and high levels of psychological control were

expected to be perceived by adolescents as less intrusive, indicative more mattering to

parents, and more competence. It was expected that this might be less pronounced in the

prudential domain. Table 4 presents the means and standard deviations and Table 5

shows the results of one-sample t-tests.

Intrusiveness. The control type by level by domain interaction was not

significant, $t(65) = -.29, p > .10$.

Mattering. The one-sample t-test revealed a significant interaction between the

control type, level, and domain, $t(64) = 2.25, p < .05$ (see Figure 1). This result indicates

that psychological and behavioral control differed by moderate versus high levels of

control, and that this was further moderated by domain. The patterns of the results were

consistent with the hypothesis. As expected, in the personal domain, moderate levels of

behavioral control ($M = 5.01, SD = 1.29$) were perceived by adolescents as meaning that

they matter more to parents than high levels of behavioral control ($M = 4.05, SD = 1.40$),

$t(66) = 5.85, p < .05$. In contrast, there were no significant differences between moderate

and high levels of psychological control, $t(66) = 1.30, p > .10$, indicating that adolescents

perceived and interpreted psychological control similarly regardless of levels of control.

The comparison between moderate levels of behavioral and psychological control further

revealed that moderate levels of behavioral control ($M = 5.01, SD = 1.29$) were perceived

Table 4

Hypothesis 2-a: Means (Standard Deviations) for Adolescents' Perceptions and Interpretations of Parental Control As a Function of Control Type by Domain

	Psychological control				Behavioral control			
	Moderate		High		Moderate		High	
Dependent variable	Personal	Prudential	Personal	Prudential	Personal	Prudential	Personal	Prudential
Intrusiveness	4.73 (1.31)	4.48 (1.35)	5.17 (1.44)	5.19 (1.52)	4.64 (1.40)	4.38 (1.51)	5.25 (1.55)	5.12 (1.39)
Mattering	4.47 (1.38)	4.98 (1.26)	4.27 (1.43)	4.56 (1.48)	5.01 (1.29)	5.33 (1.14)	4.05 (1.40)	4.81 (1.26)
Competence	3.68 (1.82)	4.00 (1.89)	2.84 (1.78)	2.82 (1.71)	3.64 (1.39)	4.27 (1.70)	2.34 (1.83)	2.62 (1.70)

Note. *N*s range from 65 to 67.

Table 5

Hypothesis 2-a: One-Sample T-tests for the Effect of Control Type by Level by Domain on Adolescents' Perceptions and Interpretations of Parental Control

Dependent variable	One-Sample T-test			
	t	df	Mean difference	95 % CI of difference
Intrusiveness	-.29	65	-.03	-.26 to .19
Mattering	2.25*	64	.24	.03 to .45
Competence	-.13	64	-.02	-.36 to .31

Note. The dependent variable is coded to reflect a 3-way interaction of control type by level by domain, which was tested against zero.

$^\dagger p < .10$. $^*p < .05$. $^{**}p < .01$.

Figure 1. *Mean levels of mattering by control type and level, moderated by domain.*
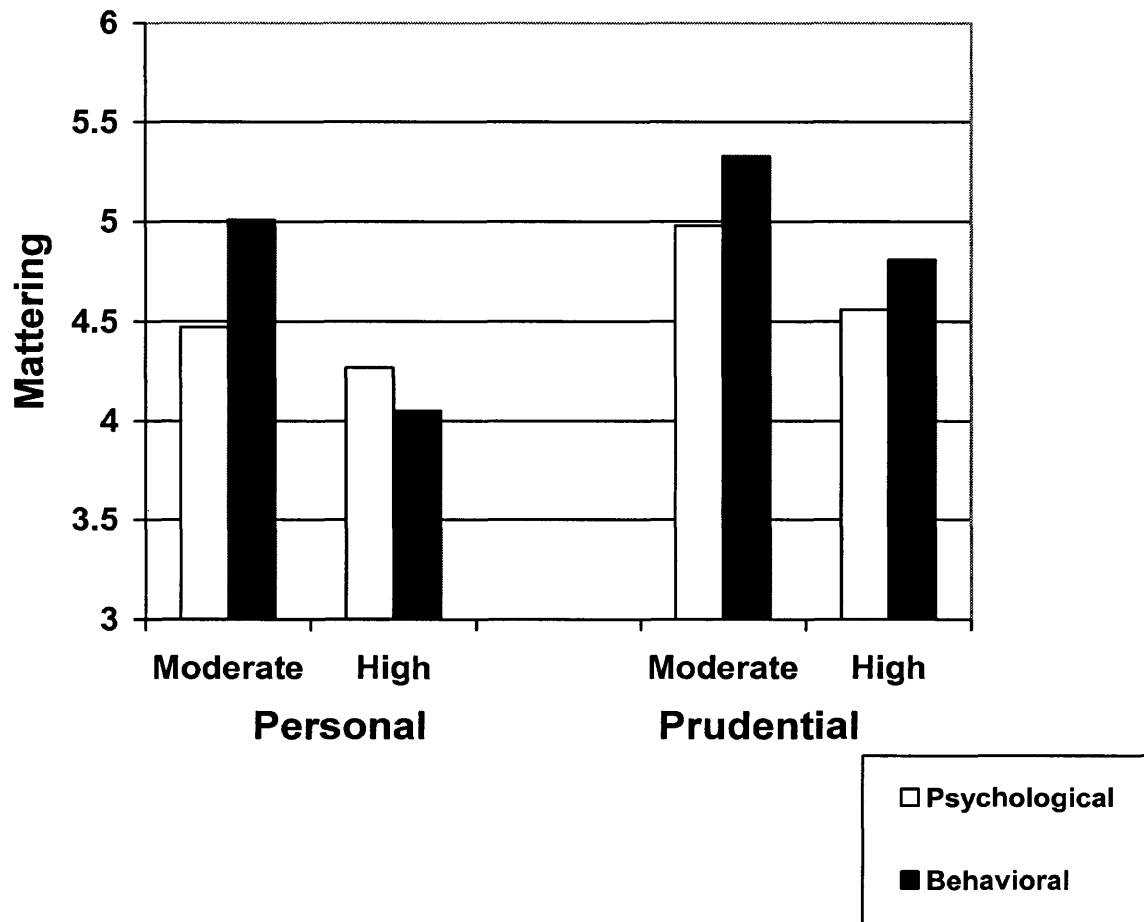
as meaning that they matter more to parents than moderate levels of psychological control, ($M = 4.47$, $SD = 1.38$), $t(66) = -3.49$, $p < .05$. No significant differences between high levels of behavioral and psychological control were found, $t(66) = 1.40$, $p > .10$, indicating that adolescents perceived high levels of behavioral control similar to high levels of psychological control.

In the prudential domain, three out of four t-tests were significant as mostly an expected way with moderate levels of behavioral control ($M = 5.33$, $SD = 1.14$) being perceived as meaning that they matter more to parents than high levels of behavioral control ($M = 4.81$, $SD = 1.26$), $t(66) = 3.34$, $p < .05$. Unexpectedly, however, moderate levels of psychological control ($M = 4.98$, $SD = 1.26$) were also interpreted as indicating that they matter more to parents than were high levels of psychological control ($M = 4.56$, $SD = 1.48$), $t(64) = 2.92$, $p < .05$. As with the personal domain, moderate levels of behavioral control ($M = 5.33$, $SD = 1.14$) were rated as more indicative of mattering to parents than moderate levels of psychological control ($M = 4.98$, $SD = 1.26$), $t(65) = -1.81$, $p < .10$. Finally, there were no significant differences between high levels of behavioral control and psychological control, $t(65) = -1.38$, $p > .10$, indicating that adolescents did not distinguish between types of control at high levels.

Competence. One-sample t-test revealed no significant three-way interaction, $t(64) = -.13$, $p > .10$.

Summary of the findings. The hypothesized a three-way interaction was only supported for mattering to parents. Overall, the findings support the hypothesized pattern particularly in the personal domain, but less so for the prudential domain. Nevertheless the obtained patterns were as expected. Specifically, in the personal domain, the

differences between moderate and high levels of psychological control were not evident whereas in the prudential domain, the differences were found with moderate levels of psychological control being perceived as indicative of more mattering to parents than high levels of psychological control.

Hypothesis 2-b: Four-Way Interaction Between Control Type, Level, Domain, and Adolescents' Legitimacy of Authority Perceptions

Separate regressions were conducted to examine whether individual differences in adolescents' perceptions of parental authority in the personal domain and prudential domain have an impact on adolescents' perceptions and interpretations of intrusiveness, mattering to parents, and competence. It was hypothesized that adolescents who claim authority in either domain would perceive parental control even more negatively than those adolescents who have ceded authority to their parents.

Intrusiveness. Contrary to the hypothesis, neither adolescents' perceptions of parental authority in the personal domain or prudential domain moderated a three-way interaction between control type, level, and domain, $F(1, 64) = .23, p > .10$; $F(1, 62)$ $=.25, p > .10$; for perceptions of parental authority in the personal domain and prudential domain, respectively. Little variance ($R^2 = 0$) was accounted for by adolescents' perceptions of parental authority in both personal and prudential domain.

Mattering. Contrary to the hypothesis, there were no significant effects of adolescents' perceptions of parental authority in the personal domain, $F(1, 63) = .49, p >$ .10 or prudential domain on mattering, $F(1, 61) = 2.01, p > .10$. Only 1% of the variance was accounted for by adolescents' perceptions of parental authority in the personal domain and 3% for the prudential domain.

Competence. The similar results were obtained for competence, $F(1, 63) = .18$, $p > .10$; $F(1, 61) = 1.58$, $p > .10$, for authority perceptions in the personal domain and prudential domain, respectively. Little variance was accounted for by authority perceptions in the personal domain ($R^2 = 0$) and 3% for the prudential domain.

Summary of the findings. There was no evidence supporting the hypothesis that adolescents' perceptions and interpretations of parental control were further conditional on their levels of authority perceptions in either personal or prudential domain. However, it should be noted that the non-significant results for authority perceptions in the personal domain may be because of little variability in authority perceptions in the current sample of adolescents. Indeed, nearly all of adolescents (98.5%) rated 3 or above for authority perceptions in the personal domain, indicating that adolescents believe the issues falling under the personal domain should at least be co-regulated by both adolescents and their parents. Furthermore, among those adolescents, most of them (77.7%) responded that the personal issues should be under their control (i.e., the ratings of 4). Thus, it is relatively clear from the result that for authority perceptions in the personal domain, there is little individual differences in authority perceptions and this may be the reason why the interaction was not significant.

Hypothesis 3: Four-Way Interaction Between Control Type, Level, Domain, and Grade

Hypothesis 3 states that the expected differences in the control type by level by domain interaction would also be conditional on adolescents' grade. Overall, older adolescents, as opposed to younger adolescents were expected to be more negatively influenced by parental control. Table 6 shows the means and standard deviations.

Intrusiveness. Even though Hypothesis 2a was not supported (i.e., no significant 3-way interactions between control type, level, and domain), the regression analysis revealed that grade significantly interacted with control type, level, and domain, $F(1, 64)$ = 4.74, $p < .05$, with 7% of the variance in intrusiveness accounted for by grade (see Figure 2).

For younger adolescents, the t-tests performed on the personal domain revealed that none of comparisons were significant: (a) moderate versus high levels behavioral control, $t(31) = -1.69, p > .10$, (b) moderate and high levels of psychological control, $t(31) = -1.23, p > .10$, (c) moderate levels of behavioral and psychological control, $t(31) = -.19, p > .10$, and (d) high levels of behavioral and psychological control, $t(31) = -.55, p > .10$.

For the prudential domain, only one comparison between moderate versus high levels of behavioral control emerged as significant, such that younger adolescents perceived high levels of behavioral control ($M = 5.05$, $SD = 1.36$) as significantly more intrusive than moderate levels of behavioral control ($M = 4.07$, $SD = 1.62$), $t(31) = -3.40$, $p < .05$. There were no significant differences between moderate and high levels of psychological control, $t(30) = -1.19, p > .10$, for comparison between moderate levels of psychological and behavioral control revealed no significant differences $t(31) = 1.28, p > .10$, nor between high levels of psychological and behavioral control, $t(30) = -1.03, p > .10$.

With respect to older adolescents, the patterns of the findings were quite different from those obtained from younger adolescents. In the personal domain, there were significant differences between moderate ($M = 4.82$, $SD = 1.52$) versus high levels of

Table 6

Means (Standard Deviations) for Adolescents' Perceptions and Interpretations of Parental Control As a Function of Control Type by Level by Domain and Adolescents' Grade

Dependent variable	Psychological control				Behavioral control			
	Moderate		High		Moderate		High	
	Personal	Prudential	Personal	Prudential	Personal	Prudential	Personal	Prudential
7th/8th Grade								
Intrusiveness	4.40	4.48	4.75	4.83	4.44	4.07	4.89	5.05
	(1.28)	(1.40)	(1.41)	(1.47)	(1.25)	(1.62)	(1.69)	(1.36)
Mattering	4.91	5.24	4.76	5.12	5.09	5.41	4.30	5.02
	(1.39)	(1.12)	(1.44)	(1.36)	(1.36)	(1.63)	(1.52)	(1.21)
Competence	4.08	4.58	3.73	3.45	4.19	4.78	2.98	3.19
	(1.93)	(1.73)	(1.66)	(1.59)	(1.30)	(1.79)	(2.03)	(1.77)
10th/11th Grade								
Intrusiveness	5.03	4.49	5.56	5.50	4.82	4.66	5.58	5.18
	(1.28)	(1.32)	(1.38)	(1.51)	(1.52)	(1.36)	(1.34)	(1.44)
Mattering	4.07	4.75	3.82	4.07	4.92	5.27	3.82	4.62
	(1.27)	(1.35)	(1.28)	(1.42)	(1.24)	(1.13)	(1.27)	(1.30)
Competence	3.31	3.47	2.03	2.27	3.14	3.80	1.74	2.10
	(1.64)	(1.89)	(1.48)	(1.64)	(1.30)	(1.50)	(1.41)	(1.48)

Note. n for 7th/8th grade ranges from 30 to 32; for 10th/11th grade $n = 35$.

Figure 2. Mean levels of intrusiveness, control type, level, and domain, moderated by adolescents' grade.
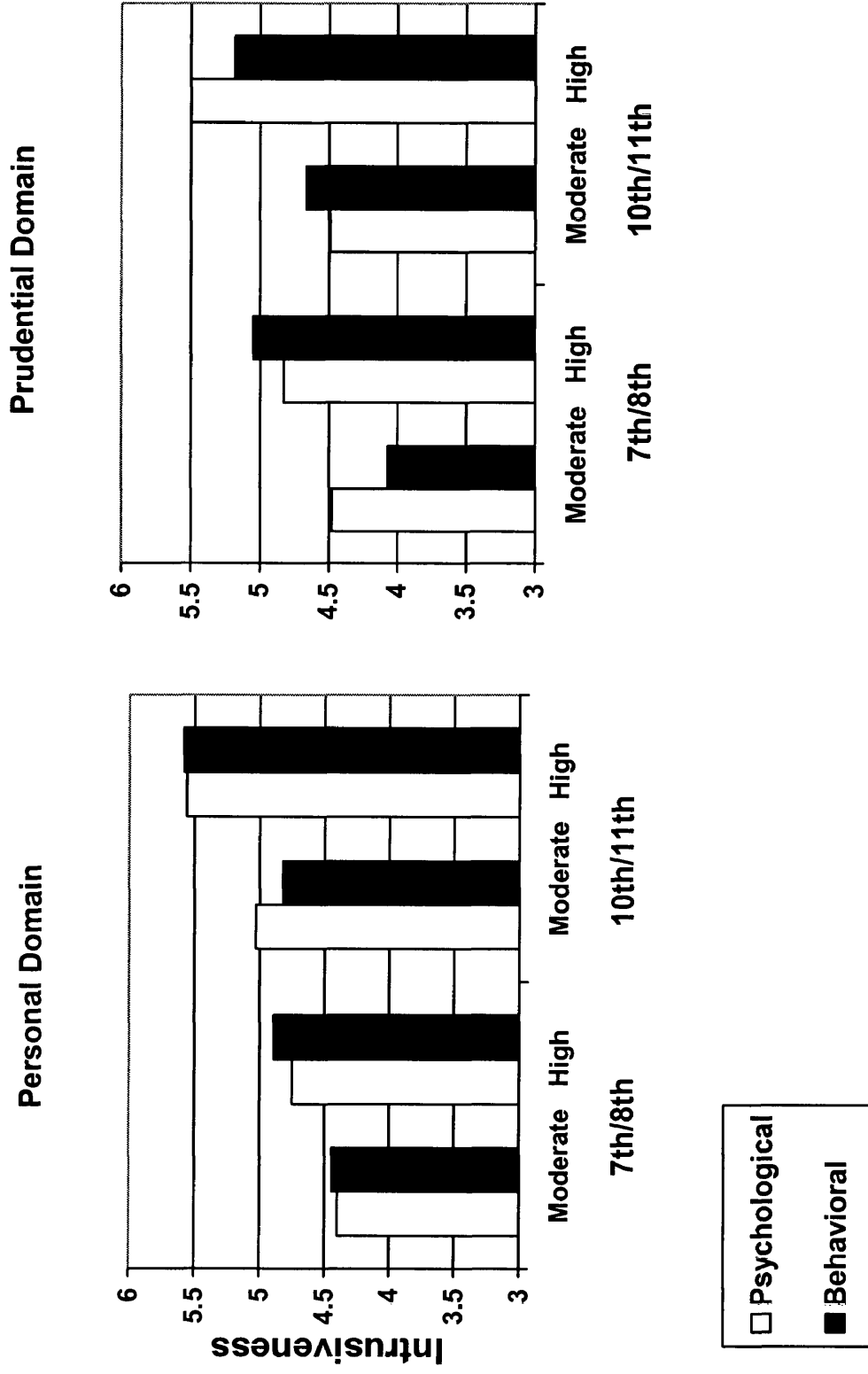
behavioral control (M = 5.58, SD = 1.34), $t(34)$ = -2.79, p < .05, in that high levels of

behavioral control were perceived as significantly more intrusive than moderate levels of

behavioral control. Similarly, there were also significant differences between moderate

(M = 5.03, SD = 1.28) and high levels of psychological control (M = 5.56, SD = 1.38),

$t(34)$ = -2.05, p < .05. Yet, no differences were found for the comparison between

moderate levels of behavioral and psychological control, $t(34)$ = .89, p > .10, such that

moderate levels of control were perceived as equally as intrusive regardless types of

control. The same pattern of the result was obtained for between high levels of behavioral

and psychological control, $t(34)$ = -.09, p > .10.

For the prudential domain, the same patterns were found. Specifically, there were

significant differences between moderate (M = 4.66, SD = 1.36) and high levels of

behavioral control (M = 5.18, SD = 1.44), $t(34)$ = -2.00, p < .10 and between moderate

(M = 4.49, SD = 1.32) and high levels of psychological control (M = 5.50, SD = 1.51,

high, $t(34)$ = -4.47, p < .05. There were no significant differences between moderate

levels of behavioral and psychological control, $t(34)$ = -.60, p > .10, nor between high

levels of behavioral and psychological control, $t(34)$ = 1.15, p > .10.

Given that the only differences found for older adolescents were in levels, the

cross-domain t-tests were conducted. These tests revealed only one significant

difference: moderate levels of psychological control exerted in the personal domain

indicated were perceived as more intrusive (M = 5.03, SD = 1.28) by 10th/11th graders

than moderate levels of psychological control in the prudential domain (M = 4.49, SD =

1.32), $t(34)$ = 2.37, p < .05.

Mattering. The regression analysis revealed no significant grade effect for perceptions of mattering to parents, $F(1, 63) = .69, p > .10$, with only 1% of the variance accounted for by the grade of adolescents. Thus, the 3-way interaction found for Hypothesis 2-a did not differ for 7th/8th graders and 10th/11th graders.

Competence. The regression analysis revealed no grade effect for the perceptions and interpretations of competence, $F(1, 63) = .54, p > .10$, with only 1% of the variance accounted for by the grade of adolescents.

Summary of the findings. The results indicate that Hypothesis 3 was partially supported for intrusiveness, but not for mattering to parents and competence. The expected patterns were not evident at all for younger adolescents in the personal domain (no differences between types or levels of control were found). For the prudential domain, the pattern was partially evident for younger adolescents: differences between moderate versus high levels of behavioral control were found with high levels of behavioral control being perceived more intrusive than moderate levels of behavioral control as expected. For older adolescents, only level differences emerged with higher levels of both behavioral and psychological control being perceives as more intrusive than moderate levels of control.

Hypothesis 4: 4-Way Interaction Between Control, Type, Domain, and Gender

The control type by level by domain interaction was hypothesized to be moderated by the gender of adolescents. Specifically, boys were expected to be affected by psychological control more than girls. Table 7 presents the means and standard deviations.

Intrusiveness. The regression analysis revealed that there was no gender effect, $F(1, 64) = 1.83, p > .10$, with only 3 % of the variance in intrusiveness accounted for by the gender of adolescents.

Mattering. The regression analysis revealed that the significant 3-way interaction found for Hypothesis 2-a was further conditional on the gender of adolescents, $F(1, 63) = 3.79, p < .10$, with 6 % of the variance accounted for by the gender of adolescents (see Figure 3).

For girls, three out of four t-tests were significant in the personal domain. As expected, moderate levels of behavioral control ($M = 5.02, SD = 1.44$) were perceived as significantly meaning that they matter more to parents than high levels of behavioral control ($M = 3.97, SD = 1.57$), $t(34) = 4.35, p < .05$. Girls, however, also rated moderate levels of psychological control ($M = 4.55, SD = 1.62$) as indicative of more mattering to parents than high levels of psychological control ($M = 4.13, SD = 1.62$), $t(34) = 1.95, p < .10$. As expected, the comparison between moderate levels of behavioral and psychological control revealed that girls rated moderate levels of behavioral control as indicating more mattering to parents ($M = 5.02, SD = 1.44$) than moderate levels of psychological control ($M = 4.55, SD = 1.62$), $t(34) = 2.00, p < .10$, whose pattern was not found for between high levels of behavioral and psychological control, $t(34) = -.79, p > .10$.

With respect to the prudential domain, the patterns of the results emerged as expected, with the significant differences between moderate ($M = 5.49, SD = 1.21$) and high levels of behavioral control ($M = 4.75, SD = 1.43$), $t(34) = 2.99, p < .05$, and no significant differences between moderate and high levels of psychological control,

Table 7

Means (Standard Deviations) for Adolescents' Perceptions and Interpretations of Parental Control As a Function of Control Type by Level by Domain and Adolescents' Gender

Dependent variable	Psychological control				Behavioral control			
	Moderate		High		Moderate		High	
	Personal	Prudential	Personal	Prudential	Personal	Prudential	Personal	Prudential
Girls								
Intrusiveness	4.73	4.70	5.56	5.52	4.71	4.41	5.41	5.32
	(1.37)	(1.34)	(1.36)	(1.44)	(1.38)	(1.55)	(1.33)	(1.20)
Mattering	4.55	4.93	4.13	4.72	5.02	5.49	3.97	4.75
	(1.62)	(1.29)	(1.62)	(1.64)	(1.44)	(1.21)	(1.57)	(1.43)
Competence	3.56	3.67	2.49	2.56	3.37	4.11	1.96	2.16
	(2.02)	(1.99)	(1.65)	(1.81)	(1.43)	(1.87)	(1.61)	(1.32)
Boys								
Intrusiveness	4.72	4.24	4.75	4.83	4.55	4.34	5.07	4.90
	(1.26)	(1.34)	(1.43)	(1.54)	(1.43)	(1.49)	(1.76)	(1.57)
Mattering	4.38	5.03	4.42	4.40	4.99	5.17	4.14	4.88
	(1.08)	(1.25)	(1.19)	(1.29)	(1.14)	(1.06)	(1.21)	(1.07)
Competence	3.81	4.36	3.23	3.10	3.94	4.34	2.75	3.13
	(1.59)	(1.73)	(1.86)	(1.58)	(1.31)	(1.51)	(2.00)	(1.94)

Note. n for girls ranges from 34 to 35; for boys *n* is from 31 to 32.

Figure 3. Mean levels of mattering, control type, level, and domain, moderated by the gender of adolescents.
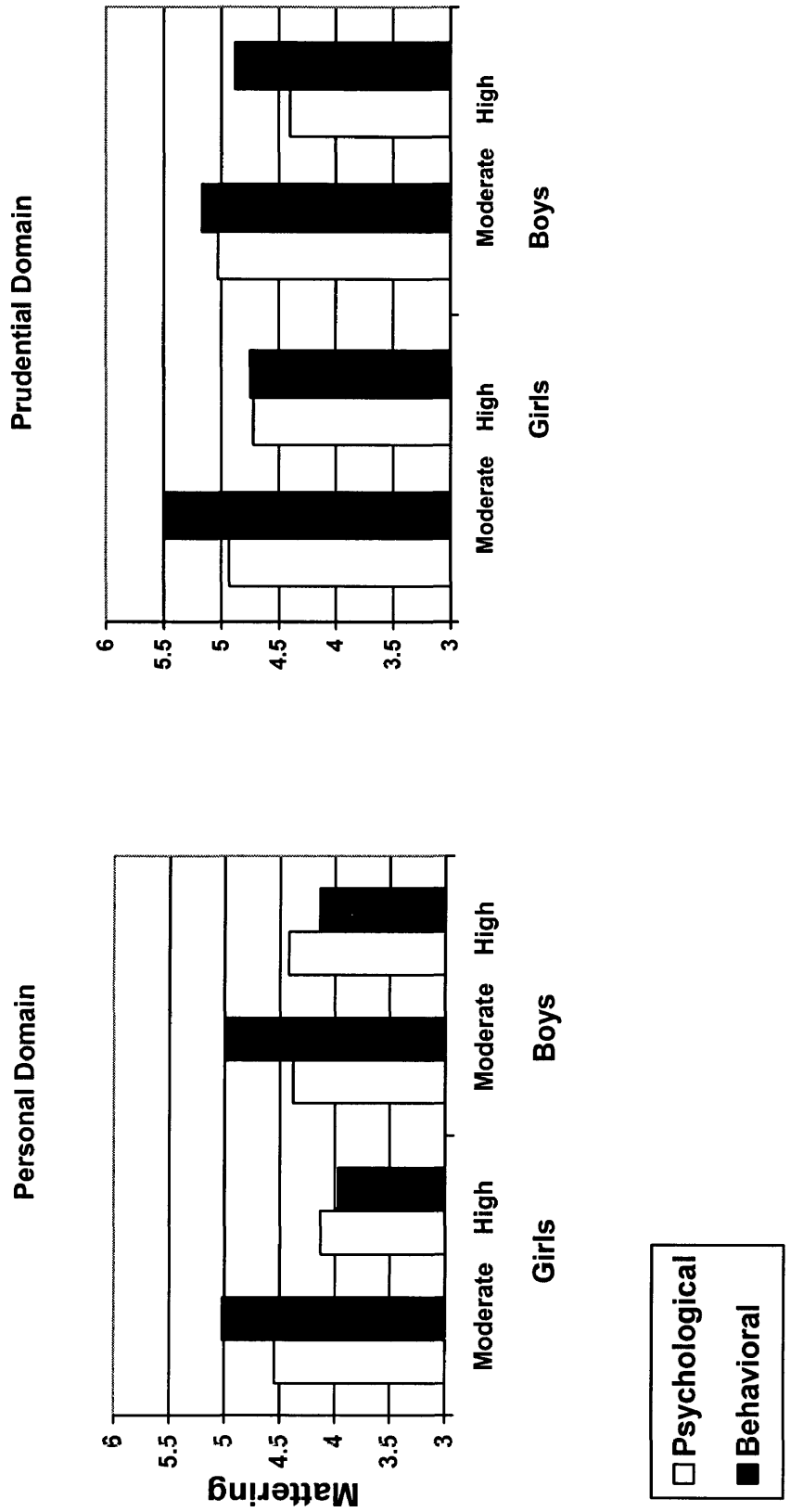
$t(33) = 1.35, p > .10$. Girls also rated moderate levels of behavioral control ($M = 5.49$, SD

= 1.21) as more indicative of mattering to parents than moderate levels of psychological

control, ($M = 4.93$, $SD = 1.29$), $t(34) = -1.96, p < .10$, with no significant differences

between high levels of behavioral and psychological control as expected, $t(33) = .20, p >$

.10. Furthermore, the cross-domain comparisons between personal and prudential

domains revealed that both high levels of behavioral, $t(34) = -3.54, p < .05$ and high

levels of psychological control, $t(33) = -2.43, p < .05$ were perceived significantly less

mattering to parents than those in the prudential domain. Thus the effects of high levels

of control were exaggerated in the personal domain.

Turning to boys, the results from the personal domain were as expected with

significant differences between moderate ($M = 4.99$, $SD = 1.14$) and high levels of

behavioral control, ($M = 4.14$, $SD = 1.21$), $t(31) = 3.88, p < .05$, but no differences

between moderate versus high levels of psychological control, $t(31) = -.19, p > .10$. Boys

also rated moderate levels of behavioral control as indicating more mattering to parents

($M = 4.99$, $SD = 1.14$) than moderate levels of psychological control, ($M = 4.38$, $SD =$

1.08), $t(31) = 3.09, p < .05$, with no significant differences between psychological and

behavioral control at high levels, $t(31) = -1.17, p > .10$.

With respect to the prudential domain, the patterns of the results were completely

opposite. Unexpectedly, there were no significant differences between moderate and high

levels of behavioral control, $t(31) = 1.60, p > .10$, yet the comparison between moderate

($M = 5.03$, $SD = 1.25$) versus high levels of psychological control ($M = 4.40$, $SD = 1.29$)

was found to be significant, $t(30) = 2.67, p < .05$. Furthermore, whereas there were no

significant differences between moderate levels of behavioral control and psychological

control, $t(30) = .46, p > .10$, boys perceived high levels of psychological control ($M = 4.40$, $SD = 1.29$) as meaning that they matter more to parents than high levels of behavioral control ($M = 4.88$, $SD = 1.07$), $t(31) = 2.01, p < .10$.

Competence. The regression analysis revealed no significant interaction between control type, level, domain, and gender, $F(1, 63) = 1.45, p > .10$, with only 2 % of the variance in competence accounted for by gender.

Summary of the findings. Hypothesis 4 was supported for only for mattering to parents, but not for intrusiveness and competence. Overall, the analyses suggest that the patterns found for girls were largely consistent with the hypothesis. The only difference was that girls perceived moderate levels of psychological control in the personal domain as more indicative of mattering to parents than high levels of psychological control. For boys, the expected pattern was observed only in the personal domain not in the prudential domain. For the prudential domain, the opposite pattern was found with perceptions of mattering to parents being lowest for high levels of psychological control and similar levels of perceptions of mattering to parents for between moderate levels of behavioral control and high levels of behavioral control.

CHAPTER VI

Discussion

Overview of the Study

The purpose of the study was to learn more about the effect of two parental

control variables, namely parental psychological and behavioral control, on adolescents'

development and to view these aspects of parenting from the adolescents' perspective.

Unlike previous studies examining parental control, this study utilized a quasi-

experimental methodology by manipulating control type (psychological and behavioral),

level (moderate versus high), and domain (personal versus prudential) to examine

patterns of adolescents' perceptions of parental control. Using transactional theory of

parent-adolescent relationships as a theoretical framework, this study assumed that

adolescents' perceptions and interpretations are critical elements in explaining the ways

in which parental psychological and behavioral control affect adolescents. As noted in the

introduction, the premise of the current study was that the distinction between

psychological and behavioral control based on parents' perspectives (e.g., via parental

intentions and goals) may not fully capture the linkage to adolescents' development and

that adolescents' interpretations of their parents' control is the process by which parental

control exerts its influence on development. Given that this study was exploratory in

nature, three models were examined, moving from simple main effects to more complex

interactions between parameters of parental control and adolescents' characteristics.

Following is the summary of the findings along with the interpretations and

implications of the study's results. The methodological limitations as well as future

directions follow this summary. The applied implications will be also discussed along with conclusions.

Psychological Control versus Behavioral Control

The results of the study add to the empirical literature in three important ways. First, this study shows that from the adolescents' perspectives, high levels of behavioral control were more problematic (e.g., mattering less to parents) than moderate levels of behavioral control, yet high levels of behavioral and psychological control were perceived similarly. As was expected, these results are largely inconsistent with the Barber's (1996) theoretical position that psychological and behavioral control are different constructs because (a) psychological control is intrusive, but behavioral control is not, and (b) the two forms of parental control are purportedly related to different developmental outcomes. Second, these results suggest that simple linear relationships are insufficient for understanding the linkages between parenting and children's development. Both curvilinear and interactive patterns are suggested by the findings of this study. Practically, this research also suggests that moderate levels of behavioral control, rather than high or low levels, are optimal (e.g., Kurdek et al., 1995; Manson et al., 1996).

Third, the results from this study provide the necessary link between parental and adolescents' adjustment, showing that adolescents actively interpret parenting behaviors. Not only do these results help clarify conflicting results found in the extant literature in which both types of parental control have been associated with internalizing and externalizing problems, but provides the process by which parenting affects adolescent development. For example, the positive relationships between high levels of behavioral

control and adolescents' adjustment problems and the inverse relationships for moderate levels of behavioral control found in previous research may have emerged because adolescents perceive and interpret moderate levels of behavioral control as positive whereas they interpret high levels of behavioral control as negative. One potential explanation for such interpretations might be that moderate levels of behavioral control are viewed by adolescents as proactive parenting and therefore, communicate positive intentions to adolescents, whereas high levels may communicate an imposition of parents' desires and less than positive intentions.

Domain Differentiated Perceptions and Interpretations of Parental Control

The results were also largely consistent with the social domain theory in that adolescents were able to make distinctions by domains when interpreting parental control. Parallel with previous studies on the legitimacy of parental authority, adolescents rated parental control exercised in the personal domain as less indicative of mattering to parents than control exercised in the prudential domain. More specifically, parental control (particularly psychological control) was interpreted negatively when exercised in the personal domain. In contrast, negative effects of behavioral control appear only when exerted at high levels. These results are consistent with research showing that adolescents react negatively to boundary violations in domains in which they perceive legitimate jurisdiction (e.g., conflict over personal domain issues, Smetana & Asquith, 1994). The current study further demonstrated that adolescents perceived and interpreted moderate levels of behavioral control in the prudential domain most positively, whereas they perceived and interpreted high levels of behavioral control in the personal domain most

negatively. Thus, adolescents' perceptions and interpretations of behavioral control seem to be more conditional on the level and domain of control than psychological control.

Age Differences

Previous research has found that older children are more likely to interpret parental control as less positive, making them feel less competent than younger children (Pomerantz & Eaton, 2000). The current study extended this to include early and middle adolescents. There appears to be a somewhat linear progression in the ways in which children and adolescents perceive parental control. Older adolescents generally perceived and interpreted parental control as more intrusive, meaning that they matter less to parents, and indicative of less competence than did their younger counterparts.

However, these results revealed a more complex pattern of the association between parenting variables and the age of adolescents. For younger adolescents, no distinctions were made for type or level of control in the personal domain. In the prudential domain, however, younger adolescents viewed high levels of behavioral control as more intrusive than moderate levels of behavioral control, and viewed high levels of behavioral and psychological control as equally intrusive. In contrast, older adolescents perceived high levels of both types of control, in both domains, as more intrusive than moderate levels of control.

Returning to the existing research helps understand these results, in part. First, although both younger and older adolescents expect to have authority in the personal domain, parents tend to more readily cede authority to older adolescents than to younger adolescents (Smetana & Asquith, 1994). Second, parents tend to retain authority in the prudential domain, which involves judgments about the degree of potential harm as well

as personal choices (Killen et al., 1991; Tisak et al., 1994). Younger adolescents, however, tend to cede authority to parents more readily than older adolescents. In addition, both judgments about harm and about personal choices differ with age (Killen et al., 1991). It is unsurprising, then, that parents tend to establish more rules about the prudential domain than about the personal domain, and that parents also tend to make more rules about prudential issues for younger adolescents than for older adolescents (Smetana & Asquith, 1994). Thus, younger adolescents may view moderate levels of behavioral control as normative for the prudential domain, and be more prepared to accept moderate levels than high levels. In contrast, older adolescents may view high levels of any type of control as problematic for both domains.

Gender Differences

Past research on parental psychological and behavioral control has suggested that adolescents' gender may moderate their interpretations of parental control. The current study demonstrated important differences between boys and girls in perceptions and interpretations of parental control in the prudential domain. In the prudential domain, boys interpreted high levels of psychological control as meaning they mattered less to parents than either moderate levels of psychological control or high levels of behavioral control. In contrast, girls interpreted moderate levels of behavioral control more positively (such as meaning that they matter more to parents) than either high levels of behavioral control or either level of psychological control. As expected, these differential patterns suggest that boys may be more negatively affected by psychological control than by behavioral control. Because boys are more frequently exposed to parental psychological control than girls (Barber et al., 2001), they may become more vulnerable

or reactive to psychological control (Conger et al., 1997). Indeed, Conger et al. (1997) suggested that based on their longitudinal study, parental psychological control appears to have a lingering effect for boys than for girls.

For girls, the results appear to imply that moderate levels of behavioral control may communicate the positive intentions of parents. Research suggests that girls expect and are granted behavioral autonomy later than boys (Feldman & Rosenthal, 1991). Perhaps because of this, girls interpret behavioral control at moderate levels as less restrictive than boys, and may also see such control as indicative of their parents' care and support. It seems that this is particularly true when it comes to prudential issues. Indeed, Feldman and Rosenthal (1991) found that issues in which girls expected behavioral autonomy later than boys pertained to the prudential domain (e.g., going out on dates, going to boy-girl parties at night, etc; Feldman & Rosenthal, 1991). Thus, girls may also be more tolerant of or accustomed to moderate levels of behavioral control. The past research with preadolescents indicates that mothers tended to use behavioral control for girls whereas they used the combination of behavioral control and autonomy granting for boys (Pomerantz & Ruble, 1998). Nonetheless, the current study revealed that when behavioral control was exercised at high levels, female adolescents no longer interpreted behavioral control in a positive way, as evidenced by the similarity in their ratings for high levels of behavioral and psychological control.

The nearly parallel results for boys and girls with regard to the personal domain may not be surprising, although it was not expected. Considering that conceptualizations of a personal domain have been observed as early as five years old (Nucci & Smetana, 1996), both boys and girls may have established similar autonomy boundaries by the time

they reach adolescence. The fact that previous studies have found gender differences in the effects of parental psychological and behavioral control (e.g., Conger et al., 1997) may be due to not having examined domains as a moderator. Thus, the current study highlights the importance of considering both gender and domain.

Individual Differences in Authority Perceptions in the Personal and Prudential Domains

Contrary to prediction, the analyses provided little support for differences in perceptions attributable to authority beliefs. One plausible explanation may be that adolescents in this sample were largely homogeneous in their perceptions of authority. In line with this homogeneity, research using a developmental perspective on adolescents' parental authority suggests that early to middle adolescence is a transitional period when a majority of adolescents shift the boundaries of personal and prudential domains. These shifts lead to conceptual changes in adolescents' beliefs about who should regulate personal and prudential issues (e.g., Smetana & Asquith, 1994; Smetana & Daddis, 2002). If this has occurred for this sample, then the assessment of authority perceptions might have been redundant with respect to the manipulations of the domains. That is, if parental control in the personal (or prudential) domain elicits nearly parallel responses to that of their perceptions of parental authority in the personal domain, it is reasonable to assume that there would be no additional variance left to be accounted for by adolescents' authority perceptions in the personal (or prudential) domain.

Additional Results

Although not hypothesized, there were several other intriguing findings regarding adolescents' authority perceptions. The preliminary results showed a significant negative correlation between adolescents' authority perceptions in the prudential domain and

adolescents' averaged ratings of competence. That is, those adolescents who rated higher levels of parental control as indicating *more* competence tended to see themselves having *less* authority in the prudential domain. Given that the issues in the prudential domain often entail risk-taking behaviors, those who viewed more parental control as indicative of more competence may see risk-taking as a threat to self-competence. They may then be more willing to cede authority over risk-taking to their parents. Alternatively, those with high authority perceptions may not see parental control as indicative of their competence because having the sense of authority in the prudential domain may provide feelings of self-efficacy or competence in the first place. Regardless of the causal direction, this result is particularly noteworthy because it not only is consistent with previous research suggesting that with age, adolescents increasingly come to view the prudential domain as under their own jurisdiction (Smetana & Asquith, 1994), but also relates to the ways in which adolescents perceive and interpret parental control.

Theoretical Implications: Adolescents' Perceptions and Interpretations

of Intrusiveness, Mattering to Parents, and Competence

One of the objectives of the current study was to examine adolescents' perceptions and interpretations of parental control using three constructs: intrusiveness, mattering to parents, and competence. Perceptions of mattering to parents showed relatively consistent associations with parental control, whereas intrusiveness was related to parental control only when adolescents' grade was included as a moderator. Finding few significant associations for competence was somewhat surprising, given the previous study, on which the vignettes were based, had examined competence. The lack of consistent findings with competence in the present study may stem from including

domains as a manipulation. Unlike Pomerantz and Eaton's study (2000), which focused on associations between parental control and children's one domain (i.e., school related issues), this study assessed parental control in personal and prudential domains. Adolescents may be less likely to interpret parental control as indicative of competence when it comes to non-academic issues. Furthermore, the reason for the inconsistent findings among the three outcomes may be because adolescents do not interpret parental control in terms of intrusiveness, mattering, and competence all at the same time.

How adolescents perceive and interpret parental control in terms of mattering to parents may be particularly relevant for understanding parent-adolescent relationships. As adolescents gain more equal status with parents, and parents begin to relinquish control to their adolescents, parents may also have to start trusting their adolescents' moral reasoning and self-control. Adolescents may feel that they matter to parents when parental trust in adolescents is successfully communicated through allowing adolescents to control aspects of their own lives.

It is worth mentioning that adolescents in the study appear to interpret that they still matter to parents even when parental psychological and behavioral control are at high levels. The mean ratings never went below 3.5 on a 7-point scale. This may be an artifact of selection. On the other hand, it might also indicate, as previous research suggests (Pomerantz & Eaton, 2000; Pomerantz & Ruble, 1998), that adolescents may interpret parental psychological and behavioral control as having both positive and negative qualities. That is, parents who exert some control may be viewed as being involved in adolescents' lives and indicate parents are interested in them. Alternatively,

the absence of parental control may be interpreted as indifference on the part of parents making adolescents feel that they matter less to parents.

Marshall (2004) suggested that mattering too much to parents may not be optimal either, as mattering too much places an emotional burden on the adolescent. For example, enmeshed relationships may be characterized as having both high levels of mattering and low levels of independence (violating the boundary between self and other). Recent empirical investigations on psychological control and parental support showed (Barber, Stolz, & Olsen, 2005) that the negative impact of perceived psychological control was even greater when it was accompanied by high levels of perceived parental support. Considering the possibility that parental control has dual interpretations (Pomerantz & Eaton, 2000), these results may reveal only one aspect of what adolescents are really experiencing and may overlook the consequences of the extreme combination of purported positive and negative qualities of parenting. That is, adolescents may interpret that they matter to parents, but also they feel constrained or violated. Thus, one direction for future research is to consider the potential for dual representations of parenting. With respect to perceptions and interpretations of parental intrusiveness, the results of this study indicate that contrary to Barber's construal of psychological control (Barber, 1996; Barber & Harmon, 2001), perceived intrusiveness was not limited to psychological control, but was extended, in some conditions, to high levels of behavioral control. Combined with the previous research on psychological and behavioral control (e.g., Barber, 1996; Barnes et al., 2000; Manson et al., 1996; Pettit et al., 2001), as well as Smetana and Daddis's (2002) and Pomerantz and Eaton's (2000) research, the current findings would suggest the possibility that high levels of parental control are likely to be

perceived as highly intrusive, regardless of the purported type of control. This may, in turn, would lead to adjustment problems in adolescents. Specifically, one would hypothesize that adolescents may feel extremely stressed by parental dominance that does not allow them to exercise self-control. Some may search for venues for exerting self-control, such as seeking leisure contexts in which adults are not present. Such venues are more likely to lead to increases in problem behaviors (Kerr & Stattin, 2003, Kerr, Stattin, Biesecker, & Ferrer-Wreder, 2003). Other adolescents may become withdrawn from their parents because of their interpretations of control and may become depressed because they lack control over their own lives. Indeed, research in social psychology would predict that individuals who cannot exert control over their own lives eventually become depressed (cf. research on learned helplessness and depression (e.g., Brown & Siegel, 1988). The results of this study suggest that older adolescents may be at greater risk for such outcomes than younger adolescents. Whether or not adolescents become internalized or externalized may also depend on other factors (e.g., personality characteristics, social support, or socialization within the family context). Future research may need to incorporate characteristics or processes that account for divergence in developmental paths, including those that might act as protective factors.

Limitations

There are several limitations that need to be considered when interpreting the results. However, these limitations also suggest avenues for future research. First, there is likely a self-selection bias in this sample. The participants were recruited via snow-ball sampling and parents of the adolescents were a primary target for the recruitment. Because of active consent procedures required, adolescent participants were not only

those who were self-selected, but also whose parents were willing to let their adolescents to participate in the study. As such, parental willingness and interest in a psychological study, and perhaps adolescents' compliance with their parents, may have affected participation and therefore limit the generalizability of the results.

Related to this self-selection bias are demographic characteristics of the participants. Almost all of the participants were from well-educated, Caucasian families. Consequently, the results obtained from the current research provide little information about adolescents from less educated family and with different ethnic backgrounds. For example, previous research has shown that ethnic differences in the association between parents' use of psychological and behavioral control and adolescents' responses including, self-esteem, academic achievement, and problem behaviors (Barrera, Biglan, Ary & Li, 2001; Bean, Bush, McKenry, & Wilson, 2003). It is particularly important to examine perceptions and interpretations of parental control among adolescents with different ethnic and cultural backgrounds. Even though there might be similar patterns of relationships between parental control and adjustment outcomes across different cultures (Barber et al., 2005), some adolescents may perceive and interpret the information differently than other groups of adolescents. For example, Rohner and Petengill (1985) have shown that Korean adolescents tended to equate intrusive control with more parental warmth and less neglect, which is somewhat different than results typically obtained from the Caucasian American samples, who are more likely to view such parental control as hostile or repressive. Unless conflict between parents and adolescents is frequent and intense, parental control may be seen by adolescents from collectivistic culture as expressions of parental love and caring (e.g., Yau & Smetana, 1996). Furthermore,

research on behavioral autonomy expectations has shown that adolescents from collectivistic culture tend to expect behavioral autonomy later and are less willing to openly question parental authority than their American counterparts (Fuligni, 1998). These differences in behavioral autonomy expectations may lead adolescents from collectivistic culture to accept or perhaps tolerate parental authority to greater extent than adolescents from the United States. Combined, these findings suggest that there appear to be important differences that parallel cultural differences in the balance between independence (autonomy) and connectedness, and that these differences likely affect how adolescents perceive and interpret parental control.

Although it is often confounded with ethnicity, parental socioeconomic status has been found to be associated with the likelihood that parents use psychological and behavioral control (although the latter is often measured as parental knowledge, rather than behavior). Yet research suggests that parents whose children reside in high risk environments (who are often also poor and often minority families) may feel obligated to use hasher or more controlling parenting in order to protect their adolescents (e.g., Dearing, 2004; Hogan & Kitagawa, 1985). Thus, under these conditions, more control may communicate to adolescents in these environments that they matter more than it would to adolescents in safer living conditions (Dearing, 2004). Certainly, it is important to include adolescents with diverse backgrounds to examine how similarly or differently adolescents perceive and interpret the same parenting behaviors.

There are also another set of limitations that are related to measurement. First, because participants were instructed to imagine if the story in the vignettes is happening to them, it is unknown to what extent the vignettes are representative of their everyday

interactions with their parents. The vignettes may have been too artificial and the participants may have never experienced such interactions with parents. It may be that many of the adolescents had not ever experienced high levels of psychological control, or tried to go to a party where alcohol would be available. It is for this very reason, though that the vignettes provide information that could not be obtained otherwise. Research using adolescents' reports of control often do not have higher levels represented in their samples. Those using parents' reports often suffer from the same lack of variability, or from bias in reporting, as few parents want to admit engaging in such adverse behaviors. It is also possible that the participants may have relied on their imagination or memory that came from the different sources (e.g., movies, books, TV shows, etc) rather than from their relationships with their parents. Methodological checks were planned and implemented. Results from the pilot study suggest that they were not unrealistic, but this check utilized undergraduate students. A covariate was also attempted but had to be dropped due to violations of statistical assumptions. It would be important, then, to attempt to validate the vignettes with early to middle adolescents.

Furthermore, this study only assessed two domains and two levels of parental control due to the practical constraints. Previous research by Smetana and her colleagues have repeatedly shown that adolescents differentiate at least five domains and the lack of inclusion of the other domains may have underestimated the degree to which adolescents' differentially perceive parental control. The exclusion low levels of parental control may have also obscured the differences in patterns between adolescents' perceptions and interpretations and parental control. A full test of nonlinearity would require the inclusion

of low levels. However, these results provide sufficient evidence to argue for examining nonlinear relationships.

Although rationale was provided in the method section for aggregating parents in the vignettes, this may have elicited different impressions than what might have emerged if mothers' and fathers' control had been assessed separately. Therefore, an additional recommendation would be to investigate the perceptions of both mothers' and fathers' control. It should also be noted that the current study focused on only the interaction of one type of parental control with other contextual variables as well as between-subject factors. An increasing number of studies have shown the unique effect of combination of such as parental psychological control and behavioral control, and psychological control and parental support on adolescents' functioning (e.g., Barber et al., 2005).

Future Directions

A natural extension of this study would be to investigate adolescents' perceptions of their own parents' control, in order to demonstrate that adolescents' perceptions and interpretations provide the mediational process linking parental control to adolescents' development. However, it would be important to draw from a sample with sufficient heterogeneity in parenting. Thus, replicating the study with a more diverse sample would be important. This would also inform researchers as to how much the results of this study generalize beyond those sampled. The use of heterogeneous sample, or specifically focusing on different cultures and environmental contexts may provide a more complete picture of parental control.

An important extension of the study is to include adolescents' perceptions and interpretations variables to validate the dimensions of parenting that have been identified

in the literature (i.e., parental support, psychological control, and behavioral control). The current study suggests that psychological and behavioral control cannot be construed as separate constructs on the basis of one being intrusive and the other not. Using a process oriented and adolescent-focused approach would enhance our understanding of the relationships between parenting and adolescents' outcomes. In particular, we might gain insight into the circumstances under which parenting behaviors have other-than theorized effects.

From a developmental perspective, it would be imperative to examine developmental changes in adolescents' perceptions and interpretations of parental control, as well as the developmental consequences that may result from changes in interpretation. Therefore, future research should include the use of change designs, where interindividual differences in intraindividual change can be assessed.

Another perspective that might inform future research is social information processing. According to this perspective, ongoing interactions between parents and adolescents lead adolescents to develop scripts or schema, on which they base their interpretations of parental behavior (Crick & Dodge, 1994). Using this perspective, the specific outcome of parents' control may also be an important consideration. That is, parents' limit setting resulting in helping adolescents avoid negative consequences is likely to be viewed differently than limit setting that deprives adolescents of opportunities for social interactions.

Applied Implications

People often optimistically assume that parenting with good intentions works. The current study revealed that it may not be the case. Although recent research on parenting

has moved from a global characterization of parental style to more context-specific parenting practices, the common problem is that the focus is still parents, and ignores the agency of adolescents. Regardless of how much parents care about their adolescent, if their behaviors are interpreted as being intrusive, indicating less mattering to parents, and competence, the consequence seems obvious. Thus, for example, it is important to teach parents that more is not necessarily better. Parents should not feel urged to engage in more behavioral control (e.g., monitor their adolescents more) just because moderate levels of behavioral control purportedly lead to better outcomes for adolescents. Unfortunately, the current study suggests that the opposite results will likely ensue. Moreover, the latest research examining parental control, particularly overcontrol, suggests that adolescents not only react poorly to such overcontrol, but that eventually, parents are faced with defiant adolescents, and reduce their control efforts as a result (Kerr et al., 2003).

The use of a quasi-experimental method for this study provided some useful insight into potential incongruencies between researchers' and adolescents' understandings of parenting behavior. The study also showed several factors that affect adolescents' perceptions and interpretations of parental control, including adolescents' gender and age. This suggests that for those who are concerned about adolescents' well-being, it is important to consider not only adolescents' perceptions and cognitions, but also their developmental abilities. For example, parental involvement that is often encouraged in the educational settings may be seen as intrusive and controlling when it is frequent or at high levels, particularly for older adolescents.

Finally, this study also showed that adolescents perceive and interpret parental control at least three different ways. Although it is not yet known how these different perceptions and interpretations work in concert or are differentially related to adolescents' adjustment indices, it is important to consider the many ways in which adolescents perceive and interpret the actions of adults. As alluded to previously, adolescents may not perceive and interpret parental control on a single continuum of negative to positive, but may hold dual representations of parental control. This is likely true of control in any context involving adults. Thus, teachers, educators, and practitioners should consider all of the potential interpretations of control.

Conclusion

Utilizing a conceptual model in which adolescents' perceptions and interpretations of parental control would mediate the relationships between parenting and developmental outcomes, this study provided initial evidence that there is little difference between psychological and behavioral control when levels of control are high. Although the results are exploratory, and thus preliminary, this study has demonstrated that the positive effects of behavioral control are limited, and adolescents are likely to view behavioral control as conditional upon level and domain of control, to a greater extent than psychological control. This is important because without knowledge of adolescents' interpretations and perceptions of parental control, prior research may have underestimated the impact of various dimensions of parenting, generally and behavioral control, specifically. From a theoretical perspective, adolescents' own contributions to own development may have been also underestimated. In sum, although the study was exploratory in nature, the results provide another way to look at how parental control may

be connected adolescents adjustment, namely through adolescents' perceptions and

interpretations.

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Appendix A

Instructions and Vignettes for Assessment of

Parental Psychological Control and Behavioral Control

Adolescents' Perceptions of Parental Control

Instructions:

1) On the following pages, you will find several versions of "scenarios" based on things that might happen to adolescents and reactions that parents might have. In reality, these things may or may not have happened to you. Even so, I would like you to read these scenarios and try to imagine that you are the adolescent that these things are happening.

Each scenario *differs slightly* and after each scenario, there are several questions regarding how you might feel if this happened to you. Please read each statement carefully, and choose the answer (using the scale provided), that most closely describes how you believe you would feel.

In addition to the scenarios you will read, you will also find several additional questions. Please try to answer all questions as much as you can.

2) There are no right or wrong answers.

3) Please do not record your name on any forms.

4) Thank you for your participation in this study.

Scenario 1:   personal domain / high behavioral control

You bring a new friend home and your parents decide they don't like him/her.
Right after your friend leaves, your parents forbid you to spend time with your friend again.

Scenario 2:   personal domain / moderate behavioral control

You bring a new friend home and your parents decide they don't like him/her.
They tell you that you need to wait until they know your friend better before you can spend time with him/her without them around.

Scenario 3:   personal domain / moderate psychological control

You bring a new friend home and your parents decide they don't like him/her.
They tell you that they are disappointed in your choice of friends and that you should consider how keeping this friend would make them feel.

Scenario 4:   personal domain / high psychological control

You bring a new friend home and your parents decide they don't like him/her.
They tell you that you've let them down, that they are ashamed that you would choose such a person to be your friend, and that if you really cared about them, you would find a better friend.

Scenario 5:   prudential domain / high behavioral control

You want to go somewhere with friends, but your parents suspect there might be alcohol around. They won't allow you to go to the party, telling you that if you disobey and go anyway, you will grounded (restricted to the house) for three months.

Scenario 6:   prudential domain / moderate behavioral control

You want to go somewhere with friends, but your parents suspect there might be alcohol around. After discussing this, they tell you that you can go, provided an adult goes along, and that you are back home at a reasonable time.

Scenario 7:   prudential domain / moderate psychological control

You want to go somewhere with friends, but your parents suspect there might be alcohol around. They tell you that they are surprised that you would consider doing this, and that they would be ashamed of you if you still went.

Scenario 8:   prudential domain / high psychological control

You want to go somewhere with friends, but your parents suspect there might be alcohol around. They tell you they are ashamed of you for considering going where there would be alcohol, and that you must be ungrateful for everything they've done if you would risk getting caught with alcohol.

Note. The following lists the order of vignette presentation generated by the random

order program.

Form 1 = 6, 3, 2, 1, 5, 7, 8, 4.

Form 2 = 2, 6, 4, 5, 7, 8, 3, 1.

Form 3 = 5, 3, 4, 6, 1, 8, 2, 7.

Form 4 = 1, 7, 2, 5, 4, 6, 3, 8.

Form 5 = 3, 8, 2, 5, 7, 1, 4, 6.

Appendix B

Assessment of Adolescents' Perceptions and Interpretations of Parental Psychological

Control and Behavioral Control: Intrusiveness, Mattering, and Competence Used for Pilot

Study I (Adapted from Barber, 1996; Barber, Olsen, & Shagle, 1994; Greenberger &

Sørensen, 1974; Marshall, 2001; Schaefer, 1965)

Answer Scale (the same from question 1 to 9):

If my parents did this, it would mean that my parents:

Agree Strongly	Somewhat Agree	Agree	Neither Agree/disagree	Somewhat Disagree	Disagree	Disagree Strongly
1	2	3	4	5	6	7

1. Want me to think for myself. (C) (Reverse coded)

2. Think I can make good decisions by myself. (C) (Reverse coded)

3. Think it is best to agree with them, rather than say what I think. (C)

4. Do not care how I feel. (M)

5. Feel I matter to them. (M) (Reverse coded)

6. Feel I am important to them. (M) (Reverse coded)

7. Don't want to invade my privacy. (I)

8. Want to control whatever I do. (I) (Reverse coded)

9. Want to know everything I do. (I) (Reverse coded)

Note.   C = competence

M = mattering

I = intrusiveness

Appendix C

Assessment of Adolescents' Perceptions and Interpretations of Parental Psychological

Control and Behavioral Control: Intrusiveness, Mattering, and Competence Used for Pilot

Study II (Adapted from Barber, 1996; Barber, Olsen, & Shagle, 1994; Greenberger &

Sørensen, 1974; Marshall, 2001; Schaefer, 1965; Wylie, 1989)

Answer Scale (the same from question 1 to 12):

If my parents did this, it would mean that my parents:

Agree Strongly	Somewhat Agree	Agree	Neither Agree/disagree	Somewhat Disagree	Disagree	Disagree Strongly
1	2	3	4	5	6	7

1. Want me to think for myself. (C) (Reverse coded)

2. Think I can make good decisions by myself. (C) (Reverse coded)

3. Think I am able to do things as well as other people. (C) (Reverse coded)

4. Think I don't have much to be proud of. (C)

5. Are not satisfied with me. (C)

6. Do not think my ideas and opinions are important. (M)

7. Feel I matter to them. (M) (Reverse coded)

8. Feel I am important to them. (M) (Reverse coded)

9. Notice my feelings. (M) (Reverse coded)

10. Don't want to invade my privacy. (I)

11. Want to control whatever I do. (I) (Reverse coded)

12. Want to know everything I do. (I) (Reverse coded)

Note. C = competence

M = mattering

I = intrusiveness

Appendix D

Final Version of Assessment of Adolescents' Perceptions and Interpretations of Parental

Psychological Control and Behavioral Control: Intrusiveness, Mattering, and Competence

(Adapted from Barber, 1996; Barber, Olsen, & Shagle, 1994; Greenberger & Sørensen,

1974; Marshall, 2001; Schaefer, 1965)

Answer Scale (the same from question 1 to 8):

If my parents did this, it would mean that my parents:

Agree Strongly	Somewhat Agree	Agree	Neither Agree/disagree	Somewhat Disagree	Disagree	Disagree Strongly
1	2	3	4	5	6	7

1.   Want me to think for myself. (C) (Reverse coded)

2.   Think I can make good decisions by myself. (C) (Reverse coded)

3.   Feel I matter to them. (M) (Reverse coded)

4.   Feel I am important to them. (M) (Reverse coded)

5.   Notice my feelings. (M) (Reverse coded)

6.   Don't want to invade my privacy. (I)

7.   Want to control whatever I do. (I) (Reverse coded)

8.   Want to know everything I do. (I) (Reverse coded)

Note.   C = competence

M = mattering

I = intrusiveness

Appendix E

Demographics Questionnaire

1) I am _____ years old.   My birth date is _____ / _____ / _____
                                                      DAY   MONTH   YEAR

2) Sex **(Circle one)**   Female   Male

3) What grade are you in? **(Circle one)**   7th/8th   10th/11th

4) What is your ethnic background? **(Circle one)**

    _____ White or Northern European (Non-Latino)

    _____ Latino / Latina

    _____ Middle Eastern

    _____ Black or African American (Non-Latino)

    _____ Asian or Pacific Islander

    _____ Native American / First Nations

    _____ Other. Please explain: (_____)

5) Please check one of the following:

    _____ I live with my Mom and Dad.

    _____ I live with my Mom and Step Dad.

    _____ I live with my Dad and Step Mom.

    _____ I have other living arrangements. Please explain: (_____)

6) How many siblings do you have?

    Number of younger brothers   _____

    Number of older brothers   _____

    Number of younger sisters   _____

    Number of older sisters   _____

7) My **MOM (STEP MOM)** (**Circle yes or no** for the person you live with the most):

a.	Completed Elementary School?	yes	no
b.	Completed High School?	yes	no
c.	Completed some College /University education?	yes	no
d.	Completed College /University? (earned associate or bachelor degree)	yes	no
e.	Completed some Graduate education?	yes	no
f.	Completed Graduate or Professional school?	yes	no

8) My **DAD (STEP DAD)** (**Circle yes or no** for the person you live with the most):

a.	Completed Elementary School?	yes	no
b.	Completed High School?	yes	no
c.	Completed some College /University education?	yes	no
d.	Completed College /University? (earned associate or bachelor degree)	yes	no
e.	Completed some Graduate education?	yes	no
f.	Completed Graduate or Professional school?	yes	no

9) What job does your **MOM (STEP MOM)** (the person you live with the most) do?

_____

(Examples: general office clerk, farmer, lawyer, teacher, or homemaker)

10) What job does your **DAD (STEP DAD)** (the person you live with the most) do?

_____

(Examples: general office clerk, farmer, lawyer, teacher, or homemaker)

Appendix F

Adolescents' Perceptions of Legitimate Authority (Adapted from Ideal Control Index by

Hasebe, Nucci, & Nucci, 2004 and Legitimacy of Parental Authority Measure by

Smetana & Asquith, 1994)

Below are listed several topics that you and your parents often have to make decisions about. Please circle the one: *__Who do you think should make the decision on each topic?__*

E. My parents should be able to decide/tell me what to do about this without discussing it with me.

D. My parents should be able to make the final decision about this after discussing it with me.

C. My parents and I should make this decision together.

B. I should make the final decision on this after discussing it with my parents.

A. I should be the one to decide this without having to discuss this with my parents.

1.	Using drugs:	A	B	C	D	E
2.	Drinking alcohol:	A	B	C	D	E
3.	Smoking cigarettes:	A	B	C	D	E
4.	What clothes to wear:	A	B	C	D	E
5.	Who to be friends with:	A	B	C	D	E
6.	What music to listen to:	A	B	C	D	E
7.	How you wear your hair:	A	B	C	D	E
8.	Skipping class or school:	A	B	C	D	E
9.	Staying up late on weekends:	A	B	C	D	E
10.	How to spend your allowance:	A	B	C	D	E
11.	Driving with teens who are new drivers:	A	B	C	D	E

Appendix G

Fantasy Measure (Adapted from Davis, 1980)

The following statements ask about your thoughts and feelings in different situations. For each item, indicate how well it describes you by circling the corresponding number.

Does not describe me well		Describe a little like me		Describes me very well
1	2	3	4	5

1. It seems like I feel the feelings of the people in the stories I read or hear.

2. When I watch a movie or TV shows, I don't imagine that I'm in it.
    (Reverse Coded)

3. When I read a book or watch a movie, I get so interested in it that I don't notice anything else.

4. After seeing a TV show or watching a movie I feel like I am one of the people in the story.

5. When I watch a good move or video, it is easy for me to pretend that I am one of the characters.

6. When I am reading an interesting book or listening to an interesting story, I imagine how I would feel if the things in the story were happening to me.

Appendix H

Validation Check

The following questions are about the scenarios you have read previously. Please circle the one you think most similar to your impression of the scenarios. And if you can, please tell us the reasons for your choice?

1. Did you feel that the parents in the scenarios were realistic (that is, something that your parents or parents you know might do)?

Not at all realistic		Somewhat realistic		Very realistic
1	2	3	4	5

If not, can you tell us why?

_____

_____

_____

2. How believable were the situations depicted in the scenarios (i.e., bringing a friend home whom parents might not like and going somewhere with friends where parents might suspect alcohol)?

Not at all believable		Somewhat believable		Very believable
1	2	3	4	5

If not, can you tell us why?

_____

_____

_____

3. How similar are the situations depicted in the scenarios to problems you have

experienced with your parents?

Not at all similar   Somewhat similar   Very similar

    1   2   3   4   5

If not, can you tell us why?

_____

_____

_____

4. I felt that the answers I gave to each scenario were how I would really think if they

happened to me.

Strongly agree   Somewhat agree   Strongly disagree

    1   2   3   4   5

If do not agree, can you tell us which ones and why?

_____

_____

_____