Children’s Daily Well-Being: The Role of Mothers’, Teachers’, and Siblings’ Autonomy Support and Psychological Control

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This study examined the unique relations between multiple sources (i.e., mothers, teachers, and siblings) of perceived daily autonomy support and psychological control and children’s basic psychological needs and well-being. During 5 consecutive days, 2 children from 154 families (M_age, youngest child = 8.54 years; SD = .89 and M_age, oldest child = 10.38 years; SD = .87) provided daily ratings of the study variables. Multilevel analyses showed that each of the sources of perceived autonomy support and psychological control related uniquely to changes in daily well-being and ill-being. These associations were mediated by experienced psychological need satisfaction and frustration, respectively. Overall, the findings testify to the dynamic role of autonomy support and psychological control in children’s development. Implications for future research are discussed.

Keywords: daily autonomy support, daily psychological control, parents, teachers, siblings, Self-Determination Theory

Essential for the healthy psychological development of children is an autonomy-supportive social environment, in which children are encouraged and helped to experience a sense of true ownership regarding their thoughts, feelings, and behaviors (Ryan, Deci, & Vansteenkiste, 2016). Many studies have demonstrated the beneficial effects of an autonomy-supportive environment for children’s psychosocial adjustment (e.g., Grolnick, Ryan, & Deci, 1991), whereas a controlling context has been found to be detrimental for children’s psychological functioning (Soenens & Vansteenkiste, 2010).

Most studies, however, have focused on one particular source of autonomy support instead of considering the unique relations between multiple sources and children’s psychological functioning. In this study, we simultaneously considered the role of mothers, teachers, and siblings. Each of these three types of relationships has unique features, with the mother–child and teacher–child relationships being more vertical in nature and with the sibling relationship being more horizontal in nature (Dunn, 2015; Maccoby, 2015). Still, as explained in the section ‘The Role of Parents, Teachers, and Siblings’, they can all be characterized in terms of autonomy support and psychological control, and they may all have unique associations with child outcomes. Moreover, there is likely substantial daily variation in the degree to which children experience these three sources as autonomy-supportive or controlling, a topic that has not been investigated systematically before. To draw a more dynamic picture of the role of these three social sources, this study relied on a diary methodology. The study is grounded in Self-Determination Theory (SDT; Deci & Ryan, 2000), a broad theory on human motivation and socialization, according to which the presumed well-being benefits of perceived autonomy support can be accounted for by the satisfaction of children’s basic psychological needs for autonomy, competence, and relatedness.

The Importance of Children’s Psychological Needs for Psychosocial Adjustment

SDT maintains that all individuals are endowed with three psychological needs; that is, the needs for autonomy, competence, and relatedness. While satisfaction of these needs contributes to children’s thriving and growth, the frustration of these same needs is said to engender maladaptive and even psychopathological functioning (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). The need for autonomy concerns experiencing a sense of volition when carrying out activities. While satisfaction of this need is apparent when children experience the freedom to do things for themselves, frustration of this need involves feeling obliged to act, think, or feel in a certain way. The need for competence entails experiences of mastery in executing daily activities and feeling effective in coping with challenges. This need is satisfied when children feel proficient when performing tasks, while it is frustrated when children feel like a failure. Finally, the need for relatedness involves having warm and trustful relationships. The need for relatedness is satisfied when children feel connected with important others, whereas this need is frustrated when children feel isolated.

The satisfaction of these psychological needs yields diverse benefits (e.g., engagement and well-being), while the frustration of these needs relates to a variety of adverse outcomes (e.g., problem behavior, ill-being; see Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). These findings emerged across cultures (e.g., in...
countries as culturally diverse as Belgium, China, the United States, and Peru) and even for individuals attaching low importance to the satisfaction of these needs (Chen et al., 2015). Studies on need satisfaction and need frustration among elementary schoolchildren are scarce. This is unfortunate because it can be argued that the psychological needs play an important role in the way children cope with the multiple developmental challenges of middle childhood (Veronneau, Koestner, & Abela, 2005). More specifically, driven by a combination of increasing demands for performance at school and by the maturation of information-processing abilities (e.g., attention, executive functioning, and memory), elementary schoolchildren are rapidly developing cognitive skills (e.g., Kail, 1991). Also, their social network is broadened, with friendships gaining importance and with peer groups becoming larger and more complex (e.g., Ladd, 1999). In one of the few studies addressing the importance of the needs for elementary schoolchildren, Véronneau et al. (2005) showed that need satisfaction related positively to well-being and to positive affect among third to seventh graders. Moreover, autonomy and relatedness satisfaction were related negatively to negative affect, and competence satisfaction was related negatively to depressive symptoms. Similarly, Emery, Toste, and Heath (2015) showed that competence satisfaction in particular was related negatively to depressive symptoms in middle childhood. Although need satisfaction is stated to be universally beneficial within SDT (Deci & Ryan, 2000), more research is needed to determine whether this also applies to younger age groups (such as elementary schoolchildren).

Apart from being limited in number, previous studies among children exclusively focused on experiences of need satisfaction. Yet, it is important to investigate the potentially distinct role of need frustration because the mere absence of need satisfaction does not necessarily involve the presence of need frustration. Conversely, the absence of need frustration does not imply the presence of need satisfaction. To illustrate, although siblings can feel as if they have little in common (i.e., low relatedness satisfaction), this does not mean that they feel isolated and actively as if they have little in common (i.e., low relatedness satisfaction). Ryan, 2000), more research is needed to determine whether this does not necessarily involve the presence of need frustration. Yet, it is important to investigate the potentially distinct role of need frustration, need satisfaction related positively to well-being and to positive affect among third to seventh graders. Moreover, autonomy and relatedness satisfaction were related negatively to negative affect, and competence satisfaction was related negatively to depressive symptoms. Similarly, Emery, Toste, and Heath (2015) showed that autonomy-supportive socializing agents take an active interest in and work from the frame of reference of the child. Doing so helps them to provide child-attuned choices, to stimulate the child to take initiatives at his or her own pace of development, and to provide rationales that are meaningful to the child (Grolnick et al., 1991; Soenens & Vansteenkiste, 2010). In contrast, autonomy-suppressing environments are characterized by a controlling style of interaction. Controlling socialization figures minimize, ignore, or deny the child’s perspective, thereby imposing their own viewpoint by making use of a variety of dominating strategies (Grolnick & Pomerantz, 2009). One of the most frequently studied forms of a controlling style is psychological control, an interaction style characterized by intrusive and manipulative tactics such as guilt induction, shaming, and love withdrawal (Barber, 1996; Soenens & Vansteenkiste, 2010).

Paralleling the theoretical and empirical distinction between need satisfaction and need frustration, the absence of autonomy support does not imply the presence of psychological control. For instance, the absence of choice (i.e., low autonomy support) is different from forcing a child to behave in a certain way (i.e., high control). Conversely, the lack of psychological control does not imply the presence of autonomy support. In sum, recent theorizing suggests a distinction between a bright pathway (where autonomy support is related to adaptive outcomes via need satisfaction) and a dark pathway (where psychological control is related to maladjustment via need frustration).

Research has shown that perceived autonomy support from key socialization figures is related to adjustment in children through the satisfaction of the psychological needs (e.g., Grolnick, Kuczynski, Dunlap, & Hevey, 2000; Taylor & Ntoumanis, 2007). In contrast, (psychological) control has been found to relate particularly to adverse outcomes through the frustration of the psychological needs (e.g., Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Mabbe, Soenens, Vansteenkiste, & Van Leeuwen, 2016). However, because most studies to date have focused either on autonomy support or on psychological control or have relied on composite scores reflecting autonomy support versus psychological control (but see Costa, Cuzzocrea, Gugliandolo, & Larcan, in press, for an exception), it remains unclear whether autonomy support and psychological control represent distinct constructs, each involved in a distinct pathway to child outcomes. Also, because most studies focused on one single key socialization figure (e.g., parent or teacher), the relative contribution of different socialization figures’ autonomy-supportive and controlling styles has remained understudied. In this study, we focus on the unique role of three important socialization figures in children’s lives: namely, mothers, teachers, and siblings.

**The Role of Parents, Teachers, and Siblings**

These three relationships differ in terms of their nature and developmental functions. As for their nature, the relationship with parents and teachers is rather vertical (e.g., Maccoby, 2015), whereas the relationship with siblings is relatively more horizontal and egalitarian (Dunn, 2015). Still, differences in power do exist between siblings. Indeed, Buhmester and Furman (1990) showed that children perceived their older siblings to be both more dominating and nurturing.

In terms of their developmental functions, relationships with teachers clearly play a key role in children’s lives in middle...
childhood, a developmental period in which the development of a sense of competence in school represents a key psychosocial task (Erikson, 1968). Teachers facilitate the acquisition and development of important cognitive skills and at the same time serve as a source of emotional support when difficulties arise during the learning process or in the context of children’s social adjustment at school (Hamre & Pianta, 2005; Hughes, Cavell, & Willson, 2001; Verschueren, 2015). During this developmental period, parents are also important reference figures in children’s lives (Collins, Madsen, & Susman-Stillner, 2002), fulfilling an even broader variety of roles than teachers. Parents introduce societally relevant norms and provide the necessary guidance so children learn to take responsibility for their functioning (Maccoby, 2015). Furthermore, parents’ role also involves teaching and protecting their children (Grusec & Davidov, 2010). Testifying to the unique importance of both teachers and parents for children’s psychosocial adjustment in middle childhood, research has shown that support provided by both parents and teachers contributes to elementary school students’ motivation and performance (e.g., Wentzel, 1998).

Siblings also play a number of important roles in children’s lives, one of which is to function as a key source of emotional support (Scholte, van Lieshout, & van Aken, 2001). During middle childhood sibling interactions are numerous and highly intense. Indeed, in middle childhood children spend most of their free time with their siblings (Bank & Kahn, 1982; McHale & Crouter, 1996). Moreover, Buhrmester and Furman (1990) showed that in this period sibling relationships are more intense than during adolescence, as indicated by both more closeness and more conflict between siblings.

Despite the differences in the nature and functions of these relationships, it is assumed in SDT that dynamics of autonomy support and psychological control are relevant in every type of relationship. Much like all people have basic psychological needs, all types of relationships can either support or thwart these universal needs (La Guardia, Ryan, Couchman, & Deci, 2000). As such, the degree of autonomy support and psychological control experienced in each of these relationships may relate to child outcomes.

Unfortunately, most studies on autonomy support and psychological control focused on the role of either parents (e.g., Barber, 1996; Grolnick et al., 1991) or teachers (e.g., Assor et al., 2005). The few studies that focused on siblings found psychological control from adolescent siblings to relate to adjustment problems and reduced self-confidence (Conger, Conger, & Saramella, 1997) and to anxiety and depressive symptoms (Campione-Barr, Lindell, Greer, & Rose, 2014). Furthermore, the one available study on perceived autonomy support among siblings showed that siblings whose psychological needs were satisfied were more likely to engage in an autonomy-supportive interaction style toward each other (Van der Kaap-Deeder et al., 2015). Although there are no studies that directly examined the effects of autonomy support among siblings on siblings’ psychological functioning, many studies provided evidence for the beneficial effects of high-quality sibling relationships (e.g., Gass, Jenkins, & Dunn, 2007) and for the detrimental effects of negative sibling interactions (e.g., bullying between siblings; Bowes, Wolke, Joinson, Lereya, & Lewis, 2014).

While most studies focused on only one single source of autonomy support, a few studies have included multiple sources. For example, Ferguson, Kasser, and Jahng (2011) showed that autonomy support from both parents (i.e., an averaged score of maternal and paternal autonomy support) and teachers related independently to students’ satisfaction with life and school. Guay, Ratelle, Larose, Vallerand, and Vitaro (2013) found that high school students who reported higher levels of autonomy support from their mothers, fathers, and teachers were more autonomously motivated for learning, felt more academically competent, and obtained higher academic grades. Conger et al. (1997) showed that siblings’, mothers’, and fathers’ use of psychological control were related uniquely to maladaptive functioning in adolescents. In short, previous studies including multiple sources have focused mostly on parental and teacher autonomy support, thereby disregarding the potentially supplementary role of siblings above these two socialization figures.

In this study, we included two siblings per family. Doing so also enabled us to examine two additional issues. First, it allowed us to look into the possible moderating role of birth order. Although relations between the quality of sibling relationships and psychological adjustment have been found to be similar for younger and older siblings (Kim, McHale, Crouter, & Osgood, 2007), the potential moderating role of birth order has not been examined with regard to autonomy support and psychological control. Second, inclusion of two siblings per family also enabled us to examine whether there exists significant variation at the family level, meaning that children from one family are more similar with respect to the study variables (e.g., maternal autonomy support) than children from different families.

A Dynamic Perspective on the Psychological Needs and Their Social Support

Most studies on the psychological needs and their contextual antecedents have focused on relatively stable differences between individuals. There are, however, also important within-person day-to-day variations in these constructs, suggesting that need satisfaction constitutes a dynamic and malleable experience susceptible to changes in the social environment (Brown & Ryan, 2006). Research on adults, for example, has shown that there are significant daily fluctuations in need satisfaction, which relate to daily variations in well-being (Ryan, Bernstein, & Brown, 2010). In contrast, daily fluctuations in need frustration among adolescents have been found to relate to daily fluctuations in maladjustment, including binge-eating symptoms (Verstuyf, Vansteenkiste, Soenens, Boone, & Mouratidis, 2013). To the best of our knowledge, no similar diary studies have been conducted among children.

Similarly, the contextual support for these needs may also be characterized by substantial day-to-day variance. Previous diary studies on parental behavior have generally found that daily constructive parent–child interaction patterns are related to daily positive emotions in adolescents, whereas negative patterns are related to daily emotional distress (e.g., Chung, Flook, & Fuligni, 2009; Fuligni & Masten, 2010). Only a few studies provided preliminary support for such a dynamic link between autonomy support and child outcomes. Mabbe, Soenens, Vansteenkiste, Van der Kaap-Deeder, and Mouratidis (2016) showed that there is significant daily variation in parental autonomy support and psychological control as reported by the parents themselves. Aunola,
Tolvanen, Viljaranta, and Nurmi (2013) showed that daily fluctuations in maternal and paternal psychological control (as reported by the parents) were related to daily fluctuations in children’s negative emotions. Similarly, Downey, Purdie, and Schaffer-Neitz (1999) found that mothers’ reports of negative parenting (including psychological control) related to higher levels of anger experienced among adolescents. Diary studies with regard to parental autonomy support and children’s psychological functioning are currently lacking. Also, to the best of our knowledge, there are no studies concerning the daily fluctuations of sibling and teacher autonomy support and psychological control. The present study built on this small literature (a) by examining daily variation in socialization figures’ perceived style in three types of relationships at once and (b) by tapping into children’s perceptions of daily autonomy support and psychological control. Doing so was deemed important because children’s perceptions of socialization figures’ style (rather than the socialization figures’ own perceptions) ultimately affect their development and adjustment (Petitt, Laird, Dodge, Bates, & Criss, 2001).

The Present Study

The present study sought to investigate the relations between perceived daily autonomy support and psychological control from three crucial social sources (i.e., mothers, teachers, and siblings) and daily changes in children’s psychological functioning as indicated by experienced need satisfaction, need frustration, well-being, and ill-being. We formulated three hypotheses and two more exploratory research questions.

First, we anticipated significant variability in the various constructs being assessed (i.e., contextual influences, psychological needs, outcomes; Hypothesis 1). Second, we hypothesized that daily variation in perceived autonomy support and psychological control from mothers, teachers, and siblings would relate uniquely to changes in daily variation in children’s psychological functioning (i.e., need satisfaction, need frustration, well-being, and ill-being; Hypothesis 2). We focused on mothers (and not on fathers) because mothers still spend more time with their children nowadays (Bornstein, 2015), in spite of important changes in the specific role and investment of mothers and fathers in children’s rearing. As we assessed general (rather than domain-specific) well-being and ill-being as experienced across the day, we did not expect to find significant differences in the strength of the relations (i.e., autonomy support/psychological control to children’s psychological functioning) between the three sources. Such differences are more likely to emerge when relying on domain-specific outcomes (with teachers, for instance, being more influential for need satisfaction in the domain of school-related tasks).

Third, we tested a mediation model, thereby examining the possibility of a bright and a dark pathway of socialization. Specifically, we hypothesized that autonomy support would be related most strongly to changes in well-being via experiences of changes in need satisfaction and that psychological control would be related most strongly to changes in ill-being via experiences of changes in need frustration (Hypothesis 3).

In a more explorative fashion, we also investigated whether person-levels of perceived autonomy support and psychological control, as assessed prior to the diary study, would moderate the associations of perceived daily autonomy support and psychological control with changes in daily experiences of need satisfaction and need frustration (Research Question 1). According to SDT (Deci & Ryan, 2000), people who have had many experiences of need satisfaction in the past may be more sensitive to subsequent similar experiences and, thus, benefit more from experiences of need satisfaction than individuals who generally have had less such experiences. Few studies have empirically addressed this notion of sensitization (see, e.g., Moller, Deci, & Elliot, 2010, for an exception). Finally, we explored whether gender, age, and birth order (i.e., being the younger or older sibling) moderated the relations between the study variables (Research Question 2).

Method

Participants and Procedure

In total, 154 families from the Dutch-speaking part of Belgium (Flanders) took part in this study. Two children per family (N = 308 children) participated. The younger sibling was on average 8.54 years old (SD = .89) and the oldest sibling was on average 10.38 years old (SD = .87). All children attended elementary school. Of all children, 55% were female and the gender distribution was similar among younger and older participants (53% girls in the younger group and 56% girls in the older group; χ²(1) = .21, p = .65). In most families, there were two (49%) or three (33%) children. The majority of mothers (Mage = 39.45, SD = 3.96) followed higher education (78%) and were married (85%).

Families were recruited as part of an undergraduate course in developmental psychology. In exchange for course credits, students were asked to invite two families (who were not relatives or close friends of the student) with at least two elementary school children between 8 and 12 years old. If a family had more than two children between 8 and 12 years old, students were asked to select those two children that were closest to each other in terms of age. Students were trained in a 1-hr information session with the first author to approach potentially interested families and to collect the data. Further assistance during the data-collection, when necessary, was provided to the students via e-mail. Students assisted children in filling out the questionnaires during the home visit. They also explained the diary booklet thoroughly. Children were informed that there were no right or wrong answers, that their answers would be treated in a confidential way, and that they could leave an item unanswered if they were unsure. In addition, the diary booklet itself also contained elaborate instructions for the child. Children were instructed to fill out the diary questionnaires each day, thereby noting the date and time of each assessment (if the child was unsure about this information, it was stated that he or she could ask help from the parent), and they were also instructed to check for missing answers each day. Students also asked mothers to remind their children to fill out the diary questionnaires each day as to avoid missing cases. Participation was anonymous, voluntary, and families did not obtain any reward. Furthermore, mothers gave their written consent on behalf of their children. This procedure was in accordance with the guidelines and protocol of the university’s Ethical Committee.

Questionnaires were administered via a home visit and a diary booklet and were provided in a paper-and-pencil version. The diary booklet was given at the end of the home visit. Although several measures were filled out by the participants during the
Day-level measures of perceived teacher autonomy support and control cannot be examined during 5 consecutive schooldays; questionnaires were not filled out during the weekend because the unique contribution of perceived teacher autonomy support and control cannot be examined on such days. All items were answered on a Likert scale ranging from 1 (not at all true) to 5 (completely true). The internal consistencies of all used scales can be found in Table 1.

### Measures

#### Person-level measures.
Participants were administered a Dutch version (Vansteenkiste, Zhou, Lens, & Soenens, 2005) of the Autonomy Support Scale of the Perceptions of Parents Scale (POPS; Grolnick et al., 1991). Of the 7 original items, 2 were removed as these assessed psychological control. Furthermore, the 8-item Dutch version (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006) of the Psychological Control Scale–Youth Self-Report (PCS-YSR; Barber, 1996) was used. Items from both scales were slightly simplified to make them appropriate and readable for elementary schoolchildren. Moreover, we ensured that the items could be filled out with regard to the mother (“my mother”), teacher (“my teacher”), and sibling (“my brother or sister”).

#### Day-level measures.

**Autonomy support and psychological control: Mother, teacher, and sibling.** Similar to the assessment during the home visit, perceived autonomy support and psychological control were again assessed with, respectively, the POPS (Grolnick et al., 1991) and the PCS-YSR (Barber, 1996). However, we now used two shortened versions of these scales (each containing 4 items) and adapted the items slightly to assess daily autonomy support (e.g., “Today, whenever possible, my mother/teacher/brother or sister allowed me to choose what to do”) and psychological control (“Today, my mother/teacher/brother or sister was less friendly with me if I did not see things his or her way”). We selected those items from the autonomy support and psychological control scales that were most suitable for daily assessments. Again, these items were filled out three times, that is, with respect to the mother, teacher, and sibling. All scales were reliable across the five days and within each of the days, as can be noticed in Table 1.

**Psychological need satisfaction and need frustration.** The Basic Psychological Need Satisfaction and Need Frustration scale (Chen et al., 2015) was employed to measure the satisfaction and frustration of the psychological needs for autonomy, competence, and relatedness. We employed a shortened 12-item version of this questionnaire (4 items per need) and adapted them slightly to assess daily need satisfaction and need frustration. Items were also adjusted to match children’s reading and comprehension level. For example, “I feel capable doing what I do” was changed into “Today, I was good at what I did”. Based on a pilot study among six children (aged between 7 and 12 years old; 3 boys who were individually tested, we made three additional changes (e.g., “people I care for” was changed into “people I like”). Example items are: “Today, I felt a sense of freedom in the things I did” (i.e., autonomy satisfaction) and “Today, I felt forced to do many things I actually didn’t want to do” (i.e., autonomy frustration). The 6 items tapping into need satisfaction were averaged and the 6 items tapping into need frustration were averaged. Both sets of scores were found to be internally consistent (Table 1).

#### Well-being and ill-being.
To assess daily well-being, we used a short scale that was partly based on the Positive and Negative Affect Schedule for Children (Laurent et al., 1999). Three items

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**Note.** AS = autonomy support; PC = psychological control.

*p < .05.* **p < .01.**
tapped into well-being (“I was joyful and excited today,” “I was happy today,” “Today was a good day”), and 3 items tapped into ill-being (“I felt bad today,” “I felt sad today,” “Today was a bad day”). Items were averaged per subscale and found to be reliable (Table 1).

Plan of Analyses

Because the data were hierarchically structured, with five measurement times (i.e., Level 1) being nested within 308 children (i.e., Level 2), which were nested within 154 families (i.e., Level 3), large dependencies within families and within persons were expected. Therefore, we employed multilevel analyses for our main models. These analyses were performed with the statistical software package MLwiN 2.16 (Rasbash, Steele, Browne, & Goldstein, 2009). All predictor variables were centered around their grand mean to facilitate convergence and interpretation of the models. In total, there were 6.36% missing values in the dataset, most of which were in the diary data (6.17% missing data in the diary data). By default, these missing values were treated as structurally missing (i.e., listwise deletion) by MLwiN. In each of the main models, we started with a random intercepts-only model and then added fixed effects. These random intercepts-only models consist of random intercepts and a constant as the only predictor (Hox, 2010) and decompose the total variation into variation at the family-, person-, and day-level. Furthermore, hypotheses were tested in a conservative fashion by controlling for prior day levels of the outcome. These analyses were conducted on a truncated dataset since the first measurement point (i.e., Day 1) has no previous day.

Results

Descriptive Statistics and Preliminary Analyses

Descriptive statistics and bivariate correlations between the study variables, which were aggregated over the 5 days, can be found in Table 1. The means reveal that on average participants study variables, which were aggregated over the 5 days, can be tested in a conservative fashion by controlling for prior day levels (Hox, 2010) and decompose the total variation into variation at the family-, person-, and day-level. Furthermore, hypotheses were tested in a conservative fashion by controlling for prior day levels of the outcome. These analyses were conducted on a truncated dataset since the first measurement point (i.e., Day 1) has no previous day.

Primary Analyses

Hypothesis 1: Daily variability in the assessed constructs. Ten random intercepts-only models were created as to examine the percentage of variance in perceived daily autonomy support and psychological control (from each social source), need satisfaction, need frustration, well-being, and ill-being that is because of variations. Given the significant variations between days, persons, and families with respect to these variables, a multilevel approach, with t-values (df = 153) ranging between 3.06 and 26.80; all ps < .01. With respect to the comparison between the three sources of autonomy support, children perceived their mothers, t(153) = 11.10 and 10.50 for the person-level and day-level, respectively, and siblings, t(153) = 4.98 and 5.76 for the person-level and day-level, respectively, to be more autonomy-supportive than their teachers, all ps < .01. Mothers were perceived to be even more autonomy-supportive than the siblings, t(153) = 5.38 and 4.16 for the person-level and day-level, respectively; ps < .01. For psychological control, siblings were perceived to be more controlling than the mothers, t(153) = 17.07 and 11.01 for the person-level and day-level, respectively) and teachers, t(153) = 19.52 and 6.82 for the person-level and day-level, respectively), all ps < .01. At the person-level, mothers were more psychologically controlling than teachers, t(153) = 4.75, p < .01, whereas at the daily level teachers were perceived to be more psychologically controlling than mothers, t(153) = 3.49, p < .01.

We also examined, by means of paired-samples t tests, whether both siblings would report equal or different levels of perceived autonomy support and psychological control. Both at the person-level and at the day-level, older siblings reported receiving higher levels of autonomy support from all three sources (t-values ranging between ~3.42, ps < .01), except for sibling autonomy support at the person-level where no difference between the two siblings was found. With regard to psychological control, there were only two differences, with older siblings perceiving less psychological control from their mother at the person-level (t = 2.33; p < .05) and more psychological control from their sibling at the day-level (t = −2.15; p < .05). Furthermore, age was related positively to autonomy support from all three sources, both at the person- and day-level (r ranging between .19 and .30, ps < .05), yet was unrelated to the mediating and outcome variables. Finally, independent-samples t tests indicated that there were no significant gender effects.¹

¹ We also compared mean-level differences in person-level and day-level autonomy support and psychological control from each social source between four groups of sibling dyads: (1) sibling dyads of two sisters (n = 44; 28.6%); (2) sibling dyads of two brothers (n = 30; 19.5%); (3) sibling dyads of one younger sister and one older brother (n = 38; 24.7%); and (4) sibling dyads of one younger brother and one older sister (n = 42; 27.3%). Results of a multivariate analysis of variance (MANOVA) showed that there were no differences between these four groups (F values ranging between .12 and 2.48, ps > .05), with one exception. Older male siblings reported receiving more autonomy support from their younger sibling if that sibling was also male (M = 3.82; SD = 98) rather than female (M = 3.14; SD = 1.22); F(3, 147) = 2.87, p < .05, η² = .06.
which takes this hierarchical structure into account, was used in all subsequent analyses.

**Hypothesis 2: The unique relations of perceived mothers’, teachers’, and siblings’ daily autonomy support and psychological control.** To investigate the unique relations of daily experienced autonomy support and psychological control from the three sources, we analyzed four models, each time including a different outcome, namely daily need satisfaction (Model 1a), daily need frustration (Model 1b), daily well-being (Model 1c), and daily ill-being (Model 1d). Results of these analyses are displayed in Table 3 and a summary of these findings is graphically presented in Figure 1.1 With respect to the day-level measures, daily autonomy support and psychological control from each social source related uniquely to, respectively, changes in daily need satisfaction and need frustration. Moreover, perceived maternal and sibling psychological control related negatively to changes in need satisfaction, while only maternal autonomy support related negatively to changes in need frustration.

With respect to the outcomes, a similar pattern of findings emerged. Specifically, perceived daily autonomy support from the mothers and siblings (but not from the teachers) related positively to changes in daily well-being, while daily autonomy support did not relate to changes in daily ill-being. Perceived daily psychological control from the mothers (and teachers but not from the siblings) related positively to changes in ill-being and negatively to changes in well-being. With respect to the person-level measures, general levels of experienced autonomy support and psychological control did not relate to the daily measures of need satisfaction, need frustration, well-being, and ill-being.

**Hypothesis 3: The mediating role of need satisfaction and need frustration.** Next, we investigated whether the relations between perceived daily autonomy support and psychological control and children’s well-being and ill-being (as shown in Model 1c and 1d) can be accounted for by daily need satisfaction and need frustration (as shown in Model 2c and 2d). Specifically, we tested a series of mediation models with (a) need satisfaction playing an intervening role in the relation between perceived autonomy support (of each source) and well-being (and (b) need frustration playing an intervening role in the relation between perceived psychological control (of each source) and ill-being. This was done by simultaneously adding daily need satisfaction and need frustration as predictors of well-being and ill-being in addition to autonomy support and psychological control. Results of these analyses are shown in Table 3.

First, daily need satisfaction and need frustration were both strongly related to changes in day-to-day well-being and ill-being. Moreover, the strength of the initial relation between experienced autonomy support and psychological control on the one hand and well-being and ill-being on the other hand was reduced substantially after taking into account the role of daily need satisfaction and frustration (compared with Model 1c and Model 1d). Still, the contribution of maternal and teacher psychological control to ill-being remained significant.

To further investigate the significance of the indirect effect of perceived autonomy support on changes in well-being through need satisfaction and the indirect effect of perceived psychological control on changes in ill-being through need frustration, we performed the product-of-coefficient test (MacKinnon, Fairchild, & Fritz, 2007). When the 95% confidence interval (CI) of this test does not contain zero, then the indirect effect is significant. These results are displayed in Table 4 wherein the upper part refers to the relation autonomy support—need satisfaction—well-being and the lower part refers to the relation psychological control—need frustration—ill-being. First, all a-paths (i.e., perceived autonomy support from each social source to changes in need satisfaction and perceived psychological control of each social source to changes in need frustration) and all b-paths (i.e., changes in need satisfaction to changes in well-being and changes in need frustration to changes in ill-being) were significant. Furthermore, all c-paths (i.e., perceived autonomy support from each social source to changes in well-being and perceived psychological control from each social source to changes in ill-being) were significant, except for teach-

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**Table 2**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Within-person variance</th>
<th>Between-person variance</th>
<th>Between-family variance</th>
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**Note.** ICC = intraclass correlation.
*p < .05. **p < .01.
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Table 3
Summary of the Model Estimates for the Three-Level Analyses of the Associations Between Autonomy Support, Psychological Control, Need Satisfaction, Need Frustration, Well-Being, and Ill-Being

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<tr>
<th>Parameter</th>
<th>Need satisfaction Model 1a</th>
<th>Need satisfaction Model 1b</th>
<th>Need frustration Model 1c</th>
<th>Need frustration Model 1d</th>
<th>Well-being Model 2a</th>
<th>Well-being Model 2b</th>
<th>Well-being Model 2c</th>
<th>Well-being Model 2d</th>
<th>Ill-being Model 2a</th>
<th>Ill-being Model 2b</th>
<th>Ill-being Model 2c</th>
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</table>

Note. AS = autonomy support; PC = psychological control. Outcomes of the models are (a) daily need satisfaction, (b) daily need frustration, (c) daily well-being, and (d) daily ill-being. Coefficients shown are unstandardized path coefficients (B) with standard errors (SE) reported between brackets. *p < .05. **p < .01.

Supplementary analyses: moderating factors. We performed four additional analyses per social source that investigated whether person-level autonomy support or person-level psychological control moderated the relation between perceived daily autonomy support and changes in daily need satisfaction or between perceived daily psychological control and changes in daily need frustration. All interaction terms in these 12 analyses were not significant, χ²(1) ranging between .04 and 1.07, all ps > .05. Thus, generally experienced autonomy support and psychological control did not moderate the relation.
between daily autonomy support and daily need satisfaction or the relation between daily psychological control and daily need frustration.

We also investigated whether associations in the models would differ depending on the gender, age, or birth order (i.e., being a younger or older sibling) of the child. Therefore, we examined interactions between these three variables and all the other predictor variables (i.e., day-level as well as person-level variables) in Models 1a, 1b, 2c, and 2d. Of the 156 interactions we tested, only 17 were significant [that is, 11%; $\chi^2(1)$ ranging between .00 and 3.72 for the nonsignificant interaction terms and ranging between 4.09 and 12.25 for the significant interaction terms]. The significant interactions indicated that the size of the associations was somewhat more pronounced among younger siblings and girls.

### Discussion

Fundamental to the optimal psychological development of children is a social environment in which children are encouraged to experience true ownership regarding their thoughts, feelings, and behaviors (i.e., autonomy support) and in which children are not pressured to think, feel, and act in certain ways (e.g., through psychological control). Multiple studies have indicated the beneficial effects of an autonomy-supportive environment for children’s psychosocial adjustment (Taylor & Ntoumanis, 2007). In contrast, a psychologically controlling or autonomy-suppressing context has been found to relate to problem behavior (e.g., Barber, 1996). However, this research has typically focused on one particular source of autonomy support and psychological control and has not adopted a diary approach. Such a diary approach is ideally suited to gain insight in the more dynamic nature of autonomy support and psychological control provided by important figures in children’s social environment.

### Daily Variation in Autonomy Support and Psychological Control

As a main goal of this study involved investigating the relations between the study variables at the day-to-day level, an important first step was to provide evidence for the existence of significant variation in these constructs at the daily level. Documenting such day-to-day variation was particularly important with regard to the perceived socialization styles used by the three social sources because the role played by socialization figures is often described in a rather static fashion (although there is a recent trend toward a more dynamic view on socialization; e.g., Laurenceau & Bolger, 2005; Repetti, Reynolds, & Sears, 2015).

Results of random intercepts-only models, which decompose the total variation in the study variables into variation at the family-, person-, and day-level (Table 2), showed that children do experience significant fluctuations in perceived autonomy support and psychological control from mothers, teachers, and siblings over a period of 5 days. Clearly then, in addition to individual differences between parents, teachers, and siblings, with the one parent/teacher/sibling being generally more autonomy-supportive and controlling than the other, the communication style of socialization figures is characterized by quite a lot of variation on a day-to-day basis. This finding is in contrast with the relatively high rank-order stability of autonomy-supportive parenting (Matte-Gagné, Bernier, & Gagné, 2013) and psychologically controlling parenting (e.g., Barber, 1996) over longer periods of time. These findings point to the importance of taking into account the variability of socialization style across short periods of time and are in line with dynamic models indicating that socialization figures’ behavior varies over time and across situations (e.g., Holden & Miller, 1999). These findings also have important implications for prevention and intervention efforts. For instance, as suggested by the current results, parental behavior is not “carved in stone” and labeling parents as...
good or bad (a view sometimes encountered in self-help books on parenting) does not do justice to the dynamics of parental behavior (apart from having a stigmatizing effect on parents). In contrast, every parent seems to have the potential to be autonomy-supportive or to have the vulnerability to be psychologically controlling.

In addition to individual differences and daily variation in socialization figures’ style, there was significant variation at the family level. Such family level differences indicate that two different family members (i.e., two siblings) perceive the communication style of different socialization figures in a similar way. While such an effect is relatively easy to understand when it comes to mothers’ and siblings’ socialization style (because mothers and siblings are part of the same family), it is more surprising that there were also family differences in perceived teacher autonomy support and psychological control. This effect indicates that siblings, who have different teachers, tend to perceive their teachers in similar ways. Although future research is needed to clarify this finding, we propose that perceiver effects could be a possible explanation. Indeed, previous research has shown that children and adolescents from one family have the tendency to perceive people in their social environment in a similar manner (e.g., Manders et al., 2009; Van der Kaap-Deeder et al., 2015).

In addition, through a process of observational learning, children may learn to apply the interactions observed within their family (e.g., between the parent and a child) in interactions with their sibling or teacher (Erel & Burman, 1995; Jenkins, Dunn, O’Connor, Rasbash, & Behnke, 2005).

The Unique Relations of Three Sources of Autonomy Support and Psychological Control With Child Outcomes

A second aim of this study was to examine whether autonomy support and psychological control from each social source (i.e., mothers, teachers, and siblings) would relate uniquely to, respectively, changes in need satisfaction and need frustration, and to, respectively, changes in well-being and ill-being. We found that the perceived socialization style from each social source had unique associations with children’s psychological functioning. Even when considered simultaneously, the effects of the different sources were not cancelled out. This study is the first to show the unique effects of especially sibling autonomy support, but also sibling psychological control above and beyond the effects of both parental and teacher autonomy support and psychological control. These results are in line with other studies showing the unique effects of autonomy support and psychological control experienced in horizontal relations (e.g., relations between peers or romantic partners) above and beyond the effects of autonomy support and psychological control experienced in vertical relations (e.g., parents, teachers, and coaches) on individuals’ psychological functioning (Hagger et al., 2009; Ratelle, Simard, & Guay, 2013). Our findings are also in line with the increasing recognition of the important and unique role of siblings in children’s psychosocial development (Conger et al., 1997; Kramer & Conger, 2009). Although siblings are recognized as an important source of influence on children’s development, with an impact that can be either positive (Scholte et al., 2001) or negative (Buhrmester & Furman, 1990), relatively few studies to date examined the unique role of siblings over the role of other key socialization figures such as parents and teachers. This is particularly true with regard to the use of an autonomy-supportive and controlling interaction style. Overall, our findings testify to the unique importance of siblings for children’s well-being as well as ill-being.

Our findings are also informative with respect to the current debate on the importance of the amount of time parents spend with their children. Milkie, Nomaguchi, and Denny (2015) found that the time mothers spent with their child (by being engaged with the child or simply by being present) was only moderately important for adolescents’ delinquent behaviors and even unrelated to younger children’s behavioral, emotional and academic functioning. However, as noted by Kalil and Mayer (2016), such findings do not say anything about the quality of these interactions. Indirectly, findings from the current study are in line with the notion that quality matters. Indeed, we found that the quality of the interactions with mothers (as indexed by high levels of autonomy support and low levels of psychological control) was uniquely important for elementary schoolchildren’s well-being even though mothers generally spend less time with their child on schooldays than teachers.

Remarkably, the unique associations of each of the three sources of autonomy support and psychological control with the child outcomes were largely unaffected by dispositional levels of perceived autonomy support and psychological control assessed prior to the diary study. All children, even those who generally perceive their parents, teachers or siblings as low on autonomy support or high on psychological control, benefitted from daily experiences of autonomy support. At the same time, it appeared that all children suffer from daily experiences of psychological control. We further examined whether gender, age, and birth order moderated the relations in our models. The observed associations in our models were generally similar for boys and girls and for younger and older children or siblings.

Overall, the lack of moderation observed in this study underscores the strength and the robustness of the observed relations and is consistent with the SDT-based notion that the basic psychological needs play a universal role in associations between contextual influences and children’s well-being (Deci & Ryan, 2000; Ryan et al., 2016). However, the robustness of our findings and the observation that each social source is uniquely related to children’s well-being does not preclude the possibility that mothers, teachers, and siblings play a more differential role in more specific domains of children’s lives. An important reason why we found that each social source mattered to a similar degree may be that we measured children’s needs and well-being at a rather general level of abstraction (Vallerand, 1997). A different pattern of findings may emerge when assessing the needs and well-being in more specific domains, such as school, social relationships, and emotion regulation, or at specific moments (e.g., during or after school time). For instance, teacher autonomy support might be especially important for children’s academic functioning (Guay et al., 2013). Furthermore, although we did not find strong gender effects, the inclusion of domain-specific measures of well-being might shed more light on possible gender effects. For instance, Lietaert, Roorda, Laevers, Verschueren, and De Fraeine (2015) showed that only boys (but not girls) benefited from teacher autonomy support in terms of their level of behavioral engagement at school. Finally, future research tapping into needs experiences and well-being
several times during the day (e.g., using event sampling methodology) could determine whether, for instance, teacher autonomy support is especially beneficial for well-being during school time.

The Bright and Dark Pathways of Socialization Style

Consistent with recent theorizing (Bartholomew et al., 2011; Vansteenkiste & Ryan, 2013) regarding the distinct roles of need satisfaction and need frustration in, respectively, a “bright” and “dark” pathway of socialization, we found that autonomy support is related to higher well-being through satisfaction of the psychological needs and that psychological control related to more ill-being through frustration of the psychological needs. These findings suggest that the presence of social contexts that actively thwart children’s needs (through psychological control) and that lead to need frustration cannot be equated with contexts that merely lack support of children’s needs and that lead to low need satisfaction.

Although, in general, evidence was found in favor of these two pathways, two sets of findings need to be highlighted. First, daily perceived psychological control from both mothers and teachers continued to have a direct association with changes in daily ill-being even after controlling for daily need frustration. Therefore, need frustration does not seem to be the sole mechanism linking psychological control and ill-being. While we assessed need frustration as experienced at the general level, need frustration experienced specifically within the mother- or teacher-relationship might more fully mediate the relation between psychological control and ill-being than the currently assessed general need frustration. In addition, it could be the case that need frustration is a rather distal mediator with another more proximal mediator intervening in the relation between need frustration and ill-being. In this respect, previous studies have shown a link between need satisfaction and well-being via either authenticity (Thomas, Sedikides, Van den Bos, Hutteman, & Reijnjtes, in press) or mindfulness (Olafsen, 2016). Thus, future studies might focus on both distal and proximal mediators in the link between psychological control and ill-being. A third possibility is that part of the direct association between psychological control and ill-being reflects a child-driven effect (e.g., Belsky, 1984), where children who feel worse about themselves perceive parental and teacher behavior as more controlling and/or elicit more controlling reactions from these socialization figures.

A second finding that deserves being highlighted is that the daily experience of psychological control was related not only to feelings of ill-being, but also to diminished feelings of well-being. This finding is consistent with a presumed asymmetrical relation between autonomy support and psychological control on the one hand and well-being and ill-being on the other hand: Whereas low perceived autonomy support does not necessarily engender ill-being, the presence of perceived psychological control does entail increased ill-being and reduced well-being (Vansteenkiste & Ryan, 2013).

Limitations

This study had several limitations. Although this study was the first to our knowledge to examine three social sources of autonomy support and psychological control simultaneously, there are several additional social sources that are important in children’s lives. Studies have shown, for instance, that autonomy support from fathers also contributes to children’s psychological well-being (e.g., Grolnick et al., 1991), albeit in somewhat different domains than mothers (e.g., Guay et al., 2013; Soenens & Vansteenkiste, 2005). Soenens and Vansteenkiste (2005), for example, found that whereas maternal autonomy support related to autonomous motivation for engaging in schoolwork and friendship relationships among adolescents, paternal autonomy support related to autonomous motivation for job search. Furthermore, studies have shown that autonomy support from peers or friends contributed to beneficial outcomes, such as well-being (Ratelle, Simard, & Guay, 2013) and prosocial attitudes within sports (Ntoumanis, Taylor, & Thøgersen-Ntoumani, 2012). Future studies could also include these social figures.

Including multiple informants would also have additional methodological advantages such as the reduction of same-source bias, shared method variance and retrospective bias (although this problem is reduced in diary studies; Bolger, Davis, & Rafaeli, 2003). However, because previous studies have shown that especially child reports are predictive of children’s psychological functioning (Petit et al., 2001), we thought it was essential to first examine how children’s perceptions of daily parenting relate to children’s daily functioning. Nevertheless, there is a need for future studies to include multiple informants; for example, by having siblings report both on the degree to which they receive and give autonomy support and psychological control toward each other and by having siblings report on the degree to which parents provide autonomy support and psychological control to both of them. In addition, including multiple informants would also shed light on the important question to what extent the observed daily variation is only a function of the child’s perception or whether, conversely, it reflects real variation in the socialization figures’ actual behavior. Because a number of recent studies have documented substantial daily variation in parenting practices, even when parents themselves reported on these practices (Aunola et al., 2013; Mabbe, Soenens, Vansteenkiste, Van der Kaap-Deeder, et al., 2016), it is unlikely, however, that daily variation in socialization figures’ style is accounted fully by children’s perception.

Furthermore, we also noted rather low reliabilities for some of the study variables and in particular for the person-level autonomy support scales. Although these reliabilities are similar to previous studies among such a relatively young age group (e.g., Grolnick et al., 1991), effects of these measures should be interpreted with caution. As the day-level variables were, in general, more reliable than the person-level measures, diary methodology seems especially appropriate for such a relatively young age group. Indeed, because younger (relative to older) participants may experience more problems with memory bias and difficulty aggregating events across time and situations, a diary approach is particularly useful to arrive at more valid and reliable assessments in this age period. Moreover, as daily well-being and ill-being were assessed with rather homogeneous items (e.g., “I felt bad today” and “Today was a bad day”), future studies could further investigate children’s psychological functioning with more differentiated items. Furthermore, as we cannot be entirely confident that the children filled out the questionnaires at the requested time (i.e., in the evening instead of, e.g., the next morning), future studies could employ electronic diaries. In addition, although we found no effect
of birth order, our findings regarding birth order should be interpreted with some caution because we had no information about the siblings’ exact place in the birth order in families with more than two children. Finally, experimental designs could shed further light on the proposed causal link between the study variables, especially because child behavior has also been found to predict the quality of the mother-child relationship (e.g., Pastorelli et al., 2000), which states that autonomy support and psychological control are, respectively, beneficial and detrimental for all individuals, regardless of one’s cultural background. However, the way children interpret and cope with parenting practices can be influenced by cultural orientation (see also Soenens, Vansteenkiste, & Van Petegem, 2015 for a discussion on this issue). Future diary studies may provide another look at cross-cultural differences and similarities, for instance by addressing the question whether—in addition to mean-level differences between cultures—there are between-culture differences in the degree of daily variation in the provision of autonomy support and psychological control. Also, cultural orientation might affect to some extent associations of daily autonomy support and control with children’s well-being. For instance, stronger endorsement of collectivism may somewhat attenuate associations between daily psychologically controlling socialization and ill-being because children with more collectivistic values have a relatively more benign attribution of psychologically controlling events (Gershoff et al., 2010).

Fourth, given that daily variations in socialization figures’ perceived autonomy support and psychological control seem to matter for children’s well-being, an important direction for future research is to examine the origins of those daily variations. Possibly, socialization figures’ own basic psychological need satisfaction plays a role. de Haan, Soenens, Dekovic, and Prinzie (2013) recently showed that parents who experienced low need satisfaction were more likely to engage in psychologically controlling parenting, possibly because they lack the energy necessary to adopt a more autonomy-supportive style. Ultimately, it would be interesting for future research to assess the psychological needs and the communication styles in both the socialization figures and the children simultaneously. Such a study would allow one to examine not only the degree of convergence in different reporters’ perception of communication style but also to examine whether the socialization figures’ psychological need experiences transfer to the child’s experiences through the figures’ communication style. Such research would also allow one to examine reciprocal processes: children’s well-being and adjustment may in itself represent a source of need satisfaction for parents and teachers. In contrast, ill-being and problem behavior are likely to increase parents’ communication styles in both the socialization figures and the children simultaneously. Such a study would allow one to examine not only the degree of convergence in different reporters’ perception of communication style but also to examine whether the socialization figures’ psychological need experiences transfer to the child’s experiences through the figures’ communication style.

Second, this study only focused on autonomy-supportive or -suppressing practices. Future research needs to include other dimensions of socialization style that might contribute to daily need satisfaction and need frustration, including responsiveness/warmth and structure (Grolnick & Pomerantz, 2009; Soenens & Vansteenkiste, 2010). Such research could address the complex interplay between different dimensions of socialization style, including the question whether certain features of socialization style are relatively more relevant to specific individual psychological needs (e.g., with autonomy support being more relevant to the need for autonomy and with responsiveness being more relevant to the need for relatedness).

Third, this study was conducted in a country (Belgium) with a cultural orientation characterized by fairly high levels of independence and individualism (Hofstede, Hofstede, & Minkov, 2010). Previous research comparing Belgium with other, more collectivistic, countries (e.g., China and South Korea) found that the effects of perceived parental autonomy support and psychological control on adolescents’ psychological functioning was fairly similar across countries (e.g., Fousiani, Van Petegem, Soenens, Vansteenkiste, & Chen, 2014; Soenens, Park, Vansteenkiste, & Mouratidis, 2012). These findings are in line with SDT’s universality claim (Deci & Ryan, 2000), which states that autonomy support and psychological control are relatively more relevant to specific individual psychological needs (e.g., with autonomy support being more relevant to the need for autonomy and with responsiveness being more relevant to the need for relatedness).

Future Challenges

Given that the number of diary studies concerning autonomy support and psychological control is limited and given that this field is still in its infancy, a number of issues await being tested. We discuss four challenges that could be addressed. First, the finding that each of the three sources of autonomy support and psychological control have unique and rather stable associations with the child outcomes is remarkable because it suggests that autonomy support and psychological are characteristics of relationships that vary widely in terms of their general nature and developmental functions. We would like to note, however, that we do not argue that the way how autonomy support and psychological control manifest is identical, because this manifestation may depend on the type of relationship and on the birth order and absolute age of the children. While some features of autonomy support (e.g., acknowledging the other person’s feelings) may apply similarly across types of relationships, other features (e.g., provision of a rationale for introducing a rule) are probably more or less relevant and prevalent depending on the type of relationship. Because our study is among the first to examine these relationship characteristics across different types of relationships, we chose to rely on rather generic items for autonomy support and psychological control. A next step for future research is to gain more detailed insight in the manifestations of these dimensions in specific relationships. Observational studies and qualitative research may be particularly useful in this regard.

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being of elementary school-age children; (b) the relevance of investigating daily processes of autonomy support and psychological control in relationships with different developmental functions; and (c) the differentiation between a bright (i.e., autonomy support—need satisfaction—well-being) and dark (i.e., psychological control—need frustration—ill-being) pathway in socialization.

References


