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## Measurement of Parental Autonomy Support: A Review of Theoretical Concerns and Developmental Considerations

*This review focuses on the measurement of parental autonomy support across different developmental periods. We begin with a summary of current theoretical perspectives on autonomy development and how they have informed the conceptualization of autonomy supportive parenting. We then discuss four different developmental periods (infancy/early childhood, middle childhood, early/middle adolescence, and late adolescence), summarizing developmental considerations for each and how such considerations have an impact on both the nature of autonomy support and how it is assessed. We hope that this information will serve as a resource for researchers who study parental autonomy support across a range of developmental periods, supporting them as they make measurement decisions.*

Children begin their lives in a state of complete dependence on caregivers. Gradually, over the course of decades, they transition from this dependency to become autonomous beings, capable of engaging in decision making and enacting behaviors across a wide range of contexts beyond the supervision of their caregivers.

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Autonomy development is a central psychosocial task of adolescence because of the social and cognitive changes that characterize this developmental period as well as its proximity to adulthood (Van Petegem et al., 2019). Despite the importance of autonomy development in adolescence, autonomous behavior is a developmental focus well before the adolescent years. Mahler, Pine, and Bergman (1975) posited that autonomy development originates during the first 2 years of life, when infants develop an understanding of self versus other in relationships with caregivers.

Given the developmental salience of autonomy as a psychosocial challenge that extends from infancy through adolescence, researchers have devoted considerable effort to identifying factors that promote successful autonomy development. Parenting is a strong and consistent predictor of autonomy development (Kouros & Garber, 2014). Parents who engage in behaviors that support exploration, choice, and independent decision making that aligns with personal preferences and values are considered high in autonomy support (Ryan, Deci, & Grolnick, 1995; Skinner & Edge, 2002; Zimmer-Gembeck, Ducat, & Collins, 2011). Yet the expression of such behaviors differs considerably depending on child age. Autonomy-supportive parenting during infancy looks different from how it does in childhood or during adolescence. Not surprisingly, the

measurement of parental autonomy support varies across developmental periods as well. Researchers need to know what constitutes best practice for measurement of parental autonomy support across different developmental periods, and this article attempts to provide that information.

#### THEORETICAL PERSPECTIVES ON PARENTAL AUTONOMY SUPPORT

The study of parental autonomy support has been framed by two distinct theoretical perspectives: separation–individuation theory and self-determination theory. These two perspectives connect to two different ways in which parents engage in autonomy support: promotion of independence (PI) and promotion of volitional functioning (PVF), respectively. Previous conceptualizations of autonomy support have often failed to distinguish PI from PVF and have incorrectly considered parental control to be the dimensionally opposing version of autonomy support broadly conceptualized. As a result, many measures of autonomy support have been developed without reference to a coherent theoretical framework and/or do not recognize the distinct nature of these two types of autonomy support (Benito-Gomez, Williams, McCurdy, & Fletcher, 2020).

Separation–individuation theory (Blos, 1979; Mahler et al., 1975) starts from the premise that healthy autonomy development involves distance, both psychological and emotional, between adolescents and their parents. To attain autonomy, adolescents must let go of childhood dependencies and take responsibility for their own lives and decisions. This perspective on autonomy considers continued reliance on parents or conforming with parents' expectations to be maladaptive. Such a perspective does not preclude the presence of a secure attachment and relatedness within the parent–child relationship but instead proposes a gradual transformation from the emotional dependencies of childhood to an emotional connection present between independently functioning adults. In terms of parental autonomy support, separation–individuation theory focuses on the ways parents promote independence and distance themselves emotionally and psychologically from their adolescents. Specifically, parents promote independence through efforts to encourage children's individuality (Silk,

Morris, Kanaya, & Steinberg, 2003), by encouraging children to engage in self-expression and decision making as a pathway to independence (Barber, Stolz, & Olsen, 2005) and by encouraging children to engage in problem solving independently. Parents who promote independence behave in ways that encourage individual expression, decision making, and thinking (Silk et al., 2003). According to this perspective, the desired end point in terms of autonomy development involves adolescents being able to solve problems and make decisions on their own, rather than relying on their parents. It should be noted that this conceptualization of autonomy development is far from universal. It lacks empirical support both among families that live outside of individualistic Western societies (Kağıçbaşı, 2013) and among cultural groups characterized by a greater emphasis on connection as opposed to individualism (Benito-Gomez et al., 2020).

A separation–individuation perspective on autonomy development and parental promotion of independence fails to recognize the importance of adolescents not just engaging in independent behavior, but also behaving authentically when they do so (Soenens, Vansteenkiste, & Sierens, 2009). Consequently, autonomy researchers have increasingly framed their work using self-determination theory (SDT; Deci & Ryan, 2000), which is based on the premise that human beings have three innate psychological needs: competence, autonomy, and relatedness. Consequently, this perspective considers autonomous functioning as necessary for well-being but also allows for it to be intertwined with relatedness. Optimal development is characterized by autonomous functioning that may involve consultation with parents and a recognition that independent actions are sometimes constrained. This theoretical perspective requires a different conceptualization of parental autonomy support. Specifically, an SDT perspective on parental autonomy support involves the promotion of volitional functioning (PVF), framing autonomy development in terms of alignment between beliefs and actions with acknowledgment that such alignment can occur only when individuals are free from external control. Parental promotion of volitional functioning is conceptualized as involving four components: (a) acknowledging children's perspectives; (b) providing explanations, especially when choices are not possible; (c) avoiding

control; and (d) offering children choices when possible (Joussemet, Koestner, Lekes, & Landry, 2005). PVF is a better predictor of child well-being than PI is, and it is particularly relevant within culturally and ethnically diverse families and societies that value interdependence over individualism (Benito-Gomez et al., 2020; Soenens et al., 2007).

Theory also guides the process of examining how parental autonomy support influences child and adolescent outcomes. As mentioned, parental autonomy support has been linked with a plethora of beneficial outcomes for children and adolescents, including academic achievement, social adjustment, perceived self-worth and competence, and life satisfaction. However, these positive outcomes are more likely to be observed in relation to PVF than to PI (Soenens et al., 2007). This suggests that an important mediator between autonomy support and child adjustment is the extent to which children's psychological needs for autonomy, competence, and relatedness are satisfied—needs that are consistent with an SDT perspective on the processes that link parental autonomy support and child well-being. The SDT-informed concept of intrinsic motivation posits that infants and young children have innate propensities to explore and gain mastery in their world, which is nurtured through parental autonomy support (Whipple, Bernier, & Mageau, 2011). Self-endorsed motivation, described as the “capacity to become aware of and act upon. . . personal interests and values,” is a similar concept that mediates the link between parental autonomy support and psychosocial functioning (including depression, self-esteem, and social well-being) for children and adolescents (Soenens et al., 2007, p. 636).

In contrast, PI is thought to encourage self-reliance and independence in children, a sign of psychological maturity. According to separation-individuation theory, this occurs through a process of differentiation (Blum, 2004). Unlike PVF, associations between PI and child outcome are predicted to depend on child age. Encouragement of separation and independence is predicted to be more adaptive during late adolescence, when obtaining independence is a normative developmental task. Children may not benefit from PI at earlier ages because the increasing independence and separation could lead to detachment (Soenens et al., 2007).

A developmental perspective on the measurement of parental autonomy support must acknowledge the particularities of different developmental periods (and, accordingly, parenting within such periods) as well as the distinction between PI and PVF. We now discuss approaches to assessing parental autonomy support across developmental periods in a manner that should support researchers' careful consideration of conceptualizations of parental autonomy support, their theoretical underpinnings, and child and adolescent development in selecting appropriate tools to assess parental autonomy support.

## PARENTAL AUTONOMY SUPPORT IN INFANCY AND EARLY CHILDHOOD

### *Developmental Considerations*

Most existing research on parental autonomy support has focused on school-aged children and adolescents, whereas autonomy support during infancy and early childhood has been less frequently examined. Some studies have focused on the preschool years, and fewer studies have involved parents of infants and toddlers. During early childhood, parental autonomy support consists of a set of specific parenting behaviors, including providing guidance appropriate to children's developmental needs, encouraging and praising, considering children's perspectives, following children's leads, and providing choices (Whipple et al., 2011). These behaviors foster a sense of volition and enable young children to integrate values underlying parental rules (Griffith & Grolnick, 2014). Studies involving young children have focused on parental autonomy as a broad construct that includes facets of both promotion of independence and promotion of volitional functioning; however, no distinction between the two has been made during this developmental period. This may be because, compared to older children, infants and toddlers have limited cognitive and language skills and cannot always understand verbal explanations (Blum, Williams, Friman, & Christophersen, 1995).

Specific to toddlerhood, it has been suggested that autonomy support manifests in the following ways: communication of empathy, provision of developmentally appropriate rationales, description of problems in an informational and neutral way, and modeling behaviors

(Andreadakis, Joussemet, & Mageau, 2019). Young children whose parents display more autonomy support have more opportunities to engage with the environment at their own pace and are more likely to have the appropriate amount of needed support. As a result, parental autonomy support has been linked to a range of positive behaviors including greater rule internalization (Andreadakis et al., 2019) and better socioemotional and cognitive outcomes among toddlers and preschoolers (Distefano, Galinsky, McClelland, Zelazo, & Carlson, 2018; Jourssmet et al., 2008).

Parental autonomy support is relatively stable from infancy to preschool (Holden & Miller, 1999). However, several factors influence the relative stability of parental autonomy support over time. For example, Matte-Gagné, Bernier, and Gagné (2013) reported that maternal autonomy support was relatively stable from 15 months to 3 years among mothers of girls but not boys, and that autonomy support was less stable among mothers who experienced more stressful life events. Despite this stability, mothers showed greater autonomy support when children were aged 15 months than when children were 3 years old. This decrease in autonomy support could be explained by preschoolers becoming more autonomous during this developmental period and needing less support from mothers. It could also be indicative of mothers showing flexibility and adapting their behaviors according to children's developmental needs.

### Measurement

*Measurement challenges.* Few studies have examined parental autonomy support during early childhood. Accordingly, there are limited measures available for capturing this construct. A challenge for measuring parental autonomy support during early childhood is that development proceeds rapidly during this period, resulting in change of measurement from infancy to the preschool years. The use of different tasks means that differences in levels of parental autonomy support from infancy to preschool could be due to measurement artifact rather than true differences. It has been suggested that measures designed for younger children are less reliable because of rapid developmental shifts during this age period (Carter, Briggs-Gowan, & Davis, 2004).

A second challenge involves difficulty distinguishing autonomy support from other parenting behaviors, such as controlling parenting or parental warmth. To address this challenge, it has been suggested that researchers not code autonomy support on the basis of the tone of voice used by parents or the affection with which behaviors are displayed (Laurin & Joussemet, 2017). It is important to note that less-controlling parenting does not necessarily mean more autonomy support when autonomy support is defined without distinguishing PI from PVF, as the broader construct of autonomy support and parental control are not distinct orthogonal constructs (Skinner, Johnson, & Snyder, 2005). Similarly, parental sensitivity and autonomy support are only moderately related ( $r = .13$ ), which suggests that the two parenting behaviors are distinct in nature (Whipple et al., 2011). Together, the findings suggest that parental autonomy support during early childhood is a construct distinct from parental control and parental sensitivity and should be measured as such. Most existing measures consist of observational assessments of mother-child interactions (see Meuwissen & Carlson, 2015, for an exception involving fathers), and only a single study has used parental self-reports to measure parental autonomy support.

### Measuring Parental Autonomy Support During Infancy

Zimmer-Gembeck, Webb, Thomas, and Klag (2015) used a five-item self-report scale to measure parental autonomy support among mothers of toddlers. Unfortunately, their measure does not fully capture the construct of autonomy support and focuses more on maternal beliefs regarding the ability to engage in these types of behavior rather than the frequency and quality of such behaviors (Ryan & Deci, 2000a). Additionally, the scale focuses more on PI than PVF and internalization of parental rules, which suggests that this measure does not fully capture all aspects of the construct of parental autonomy support (Laurin & Joussemet, 2017). For both of these reasons, researchers have suggested that the use of observational assessments might be a better approach for measuring parental autonomy support during early childhood (Laurin & Joussemet, 2017).

Researchers typically assess parental autonomy support during early childhood using



observational assessments that are conducted in the context of parent–child interactions during play. A puzzle-building task has been used in a number of studies with preschoolers (Bernier, Carlson, Deschênes, & Matte-Gagné, 2012; Distefano et al., 2018; Matte-Gagné & Bernier, 2011; Meuwissen & Carlson, 2015; Whipple et al., 2011) and infants (Matte-Gagné et al., 2013). Parents are told that the focus of the task is to see what children can do by themselves but that parents can provide any help they would like. These instructions allow parents to display. Because the puzzle is designed to be too challenging for children to complete on their own, parents need to engage in autonomy-supportive behaviors for children to successfully complete the task. The parent–child puzzle task is coded using a scheme developed by Whipple et al. (2011) based on four dimensions of autonomy support. Guided by SDT (Deci & Ryan, 2000), the dimensions examine the extent to which the parent follows the child’s needs and adapts the task to create an optimal challenge; encourages, praises, and provides the child with suggestions and uses a positive tone of voice; is flexible and considers the child’s perspective; and follows the child’s pace, provides choice, and ensures that the child takes an active role in the completion of the task.

An alternative interaction task used with parents of children as young as 15 months (Matte-Gagné et al., 2013) is a 10-minute block-sorting task. Parental behaviors are coded using an adaption of the Whipple et al. (2011) coding scheme so that the first dimension considers the extent to which mothers consider the child’s needs but also engage in different motivational strategies, such as providing help and rationale or making the task fun, rather than using controlling strategies.

Also consistent with an SDT perspective, Laurin and Joussemet (2017) measured autonomy support based on observations of a 2-minute cleanup task. For this task, autonomy-supportive parenting is coded using a scheme based on the sum of five parental practices. The first three practices are guided by Koestner, Ryan, Bernieri, and Holt’s (1984) classic definition of autonomy support: (a) *Rationale* is coded when parents give explanations for cleaning up; (b) *choice provision* is coded when parents encourage children to make their own choices; (c) *suggestion* is coded when parents ask gently that children do something. The last two practices are

coded to capture how parents support their toddler’s autonomy. *Describe* is coded every time parents highlight a problem but fail to offer additional information or to suggest an action. *Sing* is coded every time parents sing a “cleanup song.”

### *Conclusions From Infancy and Early Childhood*

The study of parental autonomy support has received less attention during early childhood than in middle childhood and adolescence, and existing measures do not distinguish between PI and PVF types of autonomy support. Specific to early childhood, most studies have focused on toddlers and preschool-aged children, whereas infancy is relatively unstudied. Researchers have suggested that the use of observational assessments of parents and children during a semistructured interaction task (e.g., a puzzle-building task, a cleanup task) is the best approach to measuring parental autonomy support during early childhood.

## PARENTAL AUTONOMY SUPPORT IN MIDDLE CHILDHOOD

### *Developmental Considerations*

The transition from early to middle childhood (ages 7–12; van der Kaap-Deeder et al., 2015) typically occurs alongside the transition to formal schooling, a change that affects children’s daily routines as well as their social and physical environments. Changes may simultaneously occur within the parent–child relationship as children’s growing maturity and competence necessitates a renegotiation of roles and boundaries. Parental autonomy support facilitates children’s transition to becoming more independent and capable (Karavasilis, Doyle, & Markiewicz, 2003) and has been shown to support social and cognitive development (van der Kaap-Deeder et al., 2015) during middle childhood. A recent meta-analysis (which did not differentiate between PI and PVF) indicated that parental autonomy support significantly predicts higher levels of academic achievement, autonomous motivation, perceived competence, and perceived control for elementary school students (Vasquez, Patall, Fong, Corrigan, & Pine, 2016).

A key characteristic of parental autonomy support during middle childhood involves the parent’s ability to “adopt and accept the

frame of reference of their children” (van der Kaap-Deeder et al., 2015, p. 1591). To this end, parents can provide developmentally appropriate autonomy support in middle childhood by acknowledging children’s perspectives and feelings, providing choices when possible, and offering meaningful rationales for decisions (Joussemet et al., 2005). For example, parents high in autonomy support may be involved with children’s schoolwork but also allow them to work independently and help children develop strategies to solve problems on their own (Fei-Yin Ng, Kenney-Benson, & Pomerantz, 2004).

Unfortunately, little is known about how parental autonomy support changes over the course of middle childhood, and there are few studies that exclusively consider elementary-school-aged children in the context of parental autonomy support (Vasquez et al., 2016). More is known regarding the impact of context on moment-to-moment alterations in parental autonomy support during middle childhood, due in large part to the work of Grolnick and colleagues (Grolnick & Ryan, 1989; Grolnick, Gurland, DeCoursey, & Jacob, 2002; Grolnick, Price, Beiswenger, & Sauck, 2007). Conclusions from this body of work indicate that mothers are less likely to use autonomy-supportive behaviors during ego-involved, high-pressure tasks (Grolnick et al., 2002), when they believe they will be evaluated, and when they have high contingent self-worth (Grolnick et al., 2007). Mothers who are rated as using more autonomy-supportive behaviors outside of the laboratory tend to have higher autonomy support during laboratory interaction tasks. These findings demonstrate that maternal autonomy support is somewhat contingent on immediate circumstances but also has a stable aspect that reflects a consistent way of responding to the child.

#### *Measuring Parental Autonomy Support During Middle Childhood*

*Measurement challenges.* There is increased variety in measures used to assess parental autonomy support during the elementary school years, due in part to children’s increasing maturity. Children in middle childhood are becoming more reliable reporters of their own behavior (Herjanic, Herjanic, Brown, & Wheatt, 1975) and their parents’ (Jacob, Moser, Windle,

Loeber, & Stouthamer-Loeber, 2000; Schaefer, 1965) behavior, which allows researchers to use child self-report measures of parental autonomy support that were not possible during earlier developmental periods. This variety can pose a challenge, however, when it comes to drawing conclusions about connections between parental autonomy support and child outcomes, as there is evidence that methodological factors have an impact on such relationships. For example, McLeod, Wood, and Weisz’s (2007) meta-analysis demonstrated that both informant and type of measure moderated associations between parenting practices and child anxiety. Studies using observational measures indicated larger effect sizes than studies relying on parent or child reports of parenting through use of questionnaire or interview measures. Therefore, methodological decisions affect the conclusions researchers can reasonably draw about connections between parenting practices and child outcomes. Most studies of parental autonomy support during middle childhood rely on child report of parental behaviors, but a few have utilized parent report or observational assessments.

*Child report.* Karavasilis, Doyle, and Markiewicz (2003) noted that assessing parenting practices from the child’s point of view offers three advantages: (a) children have been shown to be reliable informants of a parents’ behavior, (b) they are perhaps more accurate reporters of parenting than parents, and (c) child perceptions of parenting behavior are more closely linked to their own adjustment. The Academic Motivation Scale (AMS; Gillet, Vallerand, & Lafrenière, 2012; Vallerand et al., 1993) is a self-report measure used to measure parental autonomy support in middle childhood based on core tenets of SDT. Items are intended to assess PVF and can be adapted to measure autonomy-supportive behaviors of teachers, mothers, and fathers. The AMS also shows good psychometric properties; a factor analysis revealed that all items load onto a single factor, and Cronbach alphas indicate adequate interitem reliability (Gillet et al., 2012). Other child-report measures that were developed on the basis of SDT and that assess PVF include the autonomy support subscale of the Perceptions of Parents Scale (POPS; Grolnick, Ryan, & Deci, 1991) and the maternal autonomy support subscale of the Parenting Context

Questionnaire (Grolnick & Wellborn, 1988), both of which have been shown to be reliable for use with participants in middle childhood (Van der Kaap-Deeder et al., 2015, and Grolnick et al., 2002, respectively). Both measures describe the degree to which parents provide choices rather than controlling decisions, and for this reason, both scales contain items that tap autonomy-suppressing techniques in addition to autonomy-supportive ones. Researchers might consider whether this aspect of the measure aligns with their own conceptualization of autonomy-supportive parenting—namely, a PVF perspective. Finally, the psychological autonomy subscale of the Parenting Styles Questionnaire (Lamborn, Mounts, Steinberg & Dornbusch, 1991) has been used to measure PI in middle-childhood samples (e.g., Karavasilis et al., 2003). Consistent with a PI conceptualization, this subscale operationalizes autonomy support as involving democratic discipline and encouragement of individual expressiveness.

*Parent report.* We are aware of only one parent-report questionnaire designed to measure autonomy support. The Parenting Attitude Scale questionnaire (Grolnick, Benjet, Kurowski, & Apostoleris, 1997) is consistent with PVF in that it assesses parental attitudes toward autonomy support and control. Grolnick et al. (2002) and Grolnick et al. (2007) found that higher parent-reported controlling attitudes are linked with more observed controlling behavior in laboratory experiments. Parent-report measures of autonomy support are likely less common in middle childhood because of the limitations mentioned previously (parents may be less accurate reporters of their own parenting than children are), and parent report is less strongly linked to child adjustment than child self-report. Parent reports of autonomy support are better considered to measure parental attitudes than parenting behaviors.

*Interview assessments.* Grolnick and Ryan (1989) developed a coding protocol applied to interviews with parents of children in Grades 3–6. Parents were asked about how they motivated their child and how they responded to the child's school- and home-related behaviors. The interviewer and an observer rated the parent's responses with respect to values autonomy, autonomy-oriented techniques, and nondirectiveness. The three components capture

the essence of PVF autonomy support, which includes acknowledging child perspectives, providing rationales, avoiding control, and offering choices (Joussemet et al., 2005; Joussemet, Landry, & Koestner, 2008). A potential concern related to use of parental interviews to assess autonomy support is that they focus on parents' perspectives rather than actions. Similarly, validity may be compromised by social desirability bias.

*Observational assessments.* Based on the assumption that school and academic achievement are particularly salient concerns to parents in middle childhood, Grolnick et al. (2002) assessed autonomy support by observing two dyadic interaction tasks designed to mimic homework assignments. In both tasks, parent-child dyads are given instructions about how to solve a problem—either giving directions from a map or writing a quatrain—and are asked to complete a worksheet of problems. Consistent with PVF, autonomy support is coded on the basis of behaviors used to help maintain the child's involvement with the ongoing activity and encourage task-oriented behavior. Indicators include providing positive nonverbal feedback, solicited checking, encouragement, and giving informational hints and strategies. Similarly, Fei-Yin Ng et al. (2004) have devised a school-like task for mothers and their 7- to 10-year-old children. Dyads are given a booklet of digit-search problems, and mothers are told that they can assist children as much or as little as they wish. Indicators of autonomy support include attending to the child's progress, nonverbal signs of approval, and intervening when the child solicits help. This assessment of autonomy support does not easily fit into either PI or PVF categories. Although these authors were guided by SDT, they also chose to measure both a broader conceptualization of autonomy support and psychological control. The ecological validity of laboratory-based observations depends on how typical these experiences are for parent-child dyads in everyday circumstances. Accordingly, the validity of these observational methodologies to assess autonomy support may depend on factors such as the extent to which individual parents regularly supervise their children's homework completion.

Other interaction tasks in middle childhood have been designed to examine parental autonomy support under conditions of parental stress.

For example, Grolnick et al. (2007) created a task designed to elicit evaluation-related stress during a parent–child interaction. Mothers are given questionnaires for their child to complete that include a series of social problem-solving queries. Mothers are told that their children either will or will not be evaluated on the basis of their responses. Autonomy support is coded while the child fills out the form in the mother's presence. Consistent with PVF, indicators of autonomy support include offering noninterfering feedback and encouragement, information, hints, and strategies.

### *Conclusions From Middle Childhood*

During middle childhood, children begin formal schooling and become more reliable reporters of parental behavior. These changes are reflected in the methods used to measure autonomy support during middle childhood, exemplified through the use of child self-report and observation during school-like tasks. The diversity of available measures during this developmental period necessitates careful consideration of specific research questions being asked. Observations of autonomy support may be useful to researchers who want to investigate autonomy support during situations that are deemed relevant to an outcome (e.g., autonomy support on school-like tasks may predict academic outcomes), whereas self-report measures provide insight into child or parent perceptions or attitudes regarding autonomy support.

## PARENTAL AUTONOMY SUPPORT IN EARLY AND MIDDLE ADOLESCENCE

### *Developmental Considerations*

Much of the research conducted on parental autonomy support focuses on early (approximately ages 10–13) and middle (approximately ages 14–17) adolescence. During adolescence, youth spend increasing amounts of time with peers and outside the direct supervision of their parents. A central developmental task during adolescence is establishing an identity independent of parents (De Goede, Branje, Delsing, & Meeus, 2009). As youth spend less time with their families, parents and adolescents must work to renegotiate the nature of parental authority and adolescent independence while also striving to maintain relatedness (Ravindran, McElwain, & Telzer, 2020).

During this developmental period, parental autonomy support consists of parents providing encouragement and opportunities for adolescents to engage in self-endorsed decision making (Ryan & Deci, 2017). These behaviors foster the ability to make independent decisions that demonstrate alignment between young people's actions and their value systems (Ryan & Deci, 2000a, 2000b). As a result, it becomes more important that parents engage in PVF as opposed to PI. Not surprisingly, research with adolescents suggests that PVF is more broadly and consistently linked with indicators of positive adjustment than is PI (Marbell-Pierre, Grolnick, Stewart, & Raftery-Helmer, 2019). Specific to adolescence, it has been suggested that parental autonomy support manifests in the following ways: communicative support, emotional support, cognitive support, and decision-making support (Brauer, 2016; McElhaney, Allen, Stephenson, & Hare, 2009). Communicative support consists of engaging with youth in conversations about how and why decisions are made, as well as listening to young people's perspectives and demonstrating empathy. Emotional support involves supporting emotional processing and regulation. Cognitive support involves assisting youth in developing independent thoughts, opinions, and beliefs. Decision-making support entails including youth in the process of making decisions regarding rules or choices, as well supporting youth as they engage in decision-making that aligns with their beliefs and goals.

Adolescents often wish for more autonomy at earlier ages than their parents are willing to grant (Daddis & Smetana, 2005). Consequently, parents and adolescents often report differences in how they believe autonomy should be supported (Daddis & Smetana, 2005). During this period, caregivers must balance their support of adolescents' independence with maintaining connectedness in the parent–adolescent relationship. Parental autonomy support during early and middle adolescence is associated with higher levels of self-regulation and social adjustment, and lower levels of depressive symptoms (Brenning, Soenens, Van Petegem, & Vansteenkiste, 2015; Duineveld, Parker, Ryan, Ciarrochi, & Salmela-Aro, 2017; Ravindran et al., 2020), although most studies do not differentiate between PVF and PI.

Parental autonomy support is considered a stable parenting dimension (Brenning



et al., 2015); however, it changes rapidly across adolescence. It becomes less stable across the transition from early to middle adolescence as adolescents and parents renegotiate parental authority. During this period, parents assert that younger adolescents are less capable of autonomous decision making than older adolescents, which translates to granting younger adolescents fewer opportunities to engage in autonomy promotive practices (Ruck, Peterson-Badali, & Day, 2002).

### Measurement

*Measurement challenges.* During early and middle adolescence, researchers increasingly rely on youth reports of parental autonomy support. As youth develop the cognitive skills necessary to complete self-report questionnaires, parental reports and observational assessments of the construct become nearly nonexistent. As a result, it is difficult to tease apart parental autonomy support from adolescents' perceptions of parental autonomy support, and it is difficult to know how much youth reports align with those of parents.

A serious challenge involving the measurement of autonomy support during adolescence involves selecting a measure that appropriately distinguishes between PI versus PVF. Although most researchers use SDT to frame the study of autonomy support during early and middle adolescence, older measures of autonomy support often focus on PI via behavioral and decision-making autonomy support (McElhaney et al., 2009) rather than PVF. More recently developed measures are deliberately designed to measure either PI or PVF (more often PVF) or contain subscales for both PI and PVF.

### Measuring Parental Autonomy Support During Early and Middle Adolescence

Parental autonomy support during adolescence has historically been measured using a hodgepodge of measures (often developed by investigators specific to an individual study) that consider autonomy support to be part of a broader parenting construct (e.g., Fousiani, Van Petegem, Soenens, Vansteenkiste, & Chen, 2014), confound PI and PVF into a single construct (e.g., Won & Yu, 2018), or define it in idiosyncratic ways that do not map onto current conceptualizations of the construct

(e.g., Costa, Barberis, Gugliandolo, Larcan, & Cuzzocrea, 2018; Ravindran et al., 2020). Given the particular relevance of PVF in parenting of adolescents, the most appropriate measures of parental autonomy support during this developmental period are those that are grounded in SDT and include subscales explicitly developed to measure PI and/or PVF as separate constructs.

The aforementioned autonomy support subscale of the Perceptions of Parents Scale (POPS; Grolnick et al., 1991) was framed by SDT, with questions on the autonomy support subscale of the POPS consistent with conceptualizations of PVF. Framed by PVF, questions focus on the extent to which parents provide rationales to youth for decisions that have an impact on them and engage in perspective taking. The POPS was originally developed for use with third graders to sixth graders and includes subscales for parental autonomy support and parental involvement. The POPS is also ideal for measuring autonomy support in early and middle adolescence because it examines PVF specifically. During adolescence, early PI from parents may hinder adolescent adjustment and relationships with parents. For example, Soenens et al. (2007) found greater levels of PVF predicted middle adolescent well-being, whereas having high levels of PI during middle adolescence indicated premature detachment from parents. Therefore, it is important to measure PVF when examining autonomy support in early and middle adolescence, and measuring PI alone is not developmentally appropriate within this age group. In early and middle adolescence, the POPS demonstrates good psychometric properties in English (Asghari & Besharat, 2011). However, the original factor structure has not always been maintained in translated versions. For example, in Urdu the original two-factor model was confirmed and good internal consistency demonstrated (Khan & Shahzad, 2020), but in Turkish a three-factor model represented a better fit (Kocayörük, 2012).

An additional measure used to examine autonomy support during early and middle adolescence is Soenens et al.'s (2007) adolescent-report measure of parental autonomy support. With an explicit intent of distinguishing between PI and PVF, Soenens and colleagues combined items from the POPS with items from Silk et al.'s (2003) measure of parental autonomy granting, consistent with conceptualizations of PI. In the development of this

measure, Soenens and colleagues explicitly applied an SDT framework. The resulting measure includes two subscales assessing PI and PVF. To date, the Soenens et al. (2007) measure of parental autonomy support is the only measure of parental autonomy support that incorporates separate subscales for PI and PVF.

Another measure developed with explicit recognition of SDT and the distinction between PI and PVF is the Perceived Parental Autonomy Support Scale (P-PASS; Mageau et al., 2015), which yields subscales for both autonomy-supportive parenting and controlling parenting. The autonomy support subscale is intended to be a measure of PVF and assesses parental provision of choice, allowance of decision making, and engagement in perspective taking. Based on an SDT perspective, items focus on the extent to which parents consider adolescents' points of view, provide rationales for decisions that have an impact on them, and demonstrate empathy by seeking to understand adolescents' feelings and emotions. This measure was developed with both early adolescents and young adults in mind. In early and middle adolescence, the P-PASS demonstrates good psychometric properties; Cronbach alphas and factor analyses yielding three-factor models with satisfactory fit indicate good internal consistency (Bureau & Mageau, 2014; Álvarez, Castillo, & Moreno-Pellicer, 2019). It is important that researchers using this measure understand that the two subscales of the P-PASS assess distinct constructs and that autonomy supportive parenting and controlling parenting do not necessarily represent opposite ends of the same dimension (Soenens et al., 2009).

#### *Conclusions From Early and Middle Adolescence*

The study of parental autonomy support has received a considerable amount of attention during early and middle adolescence. As adolescents become cognitively capable of completing self-report measures, parental reports become relatively nonexistent, leaving researchers to gauge parental autonomy support using adolescent perceptions only. Research during this developmental period is increasingly framed by SDT and involves separate measurement of PI and PVF.

## PARENTAL AUTONOMY SUPPORT IN LATE ADOLESCENCE

### *Developmental Considerations*

Late adolescence (or emerging adulthood; Arnett, 2000) begins at approximately age 18 and continues into the mid-20s. During this developmental period, parents greatly vary in the extent to which they accept the growing independence of their children (Kloep & Hendry, 2010). Although parents expect older adolescents who enroll in college to be more emotionally autonomous than college students do themselves (Baete Kenyon & Silverberg Koerner, 2009), parents in the United States are willing to provide financial support to college-enrolled children to varying degrees (Padilla-Walker, Nelson, & Carroll, 2012). More so than earlier in adolescence, parents of older adolescents expect that their children will function independently by engaging in activities such as maintaining full-time employment, supporting themselves at least partially, enrolling in higher education, or living away from home. Such expectations are likely to be present regardless of whether adolescents themselves desire autonomy, and behaviors that encourage independence in the absence of adolescent commitment are indicative of PI. In contrast, PVF during late adolescence takes into consideration adolescents' desire and readiness for autonomy. Parents with high levels of PVF try to take the perspective of their adolescents and encourage them to make choices on the basis of what they want without displaying psychologically controlling behaviors (Dawson & Pooley, 2013; Soenens et al., 2007; Soenens et al., 2009). Therefore, developmentally appropriate autonomy support during late adolescence acknowledges and encourages gradually increasing levels of independence. Older adolescents perceive parental autonomy support as involving not only provision of choices but also behaviors that show respect for their decisions and opportunity to develop a sense of self (Downie et al., 2007; Mageau et al., 2015; Soenens et al., 2007).

### *Measurement*

*Measurement challenges.* The most frequently studied group of older adolescents are college students, aged 18 to 22 years. Because of the convenience of sampling from universities,

most research focusing on parental autonomy support during late adolescence would be better referred to as the study of autonomy support during college enrollment (e.g., Dawson & Pooley, 2013; Downie et al., 2007; Mageau et al., 2015; Pesch, Larson, & Surapaneni, 2016; Soenens et al., 2007; Van Petegem, Brenning, Baudat, Beyers, & Zimmer-Gembeck, 2018). According to separation–individuation theory, physical separation may change the nature and meaning of autonomy support for late adolescents who live away from home (Blos, 1979). For example, adolescent girls who live away from home report less conflicted relationships with mothers than those who are living at home or are about to transition out of home (Smetana, Metzger, & Campione-Barr, 2004), which may change the emotional backdrop against which autonomy support occurs. It becomes easier for late adolescents who are desiring of autonomy to make independent choices in college, because parents are not around to supervise; at the same time, parents are less aware of the extent to which adolescents living away from home are or are not engaging in some types of autonomous behavior.

This focus on college students also means that we know little about the nature of autonomy support among parents of adolescents who drop out of college or high school and enter the workforce early (for exceptions, see Downie et al., 2007; Kins, Beyers, Soenens, & Vansteenkiste, 2009; Van Petegem et al., 2018) or whether existing measures of autonomy support are valid for use within such samples. Self-determination may differ considerably during late adolescence given the variability in contexts and experiences that characterize this developmental period.

Autonomy is multifaceted during late adolescence and needs to be considered as it is expressed across multiple contexts of life. According to SDT, parents who promote volitional functioning of autonomy promote positive development among adolescents, but PVF needs to be expressed in all contexts. For example, parents may respect adolescents' choices regarding friends and dating but may not allow adolescents to make their own career decisions. Therefore, parental autonomy support should not be measured as present or absent, but rather in terms of the degree to which supportive behaviors are expressed and the contexts in which autonomy support is present.

*Measuring parental autonomy support during late adolescence.* The two primary measures used by researchers to assess parental autonomy support during late adolescence are the same as those used during early and middle adolescence: the Soenens et al. (2007) adaptation of the POPS and the P-PASS (Mageau et al., 2015). Both measures were developed for use with college student samples, and both measures are demonstrably adequate reliable and valid measures of PVF and/or PI during late adolescence.

Soenens et al.'s (2007) adaptation of the POPS was developed for use in a study of college students in Belgium. The authors reported that PVF was positively related to psychosocial functioning in late adolescence (with self-determination as a mediator). However, PI was related to late adolescents' psychosocial functioning only in terms of zero-order correlations, and PI did not predict self-determination when shared variance with PVF was taken into account. Findings from Kins et al. (2009), using this adaptation of the POPS, confirmed that the effect of PI on well-being in late adolescence disappears when PVF is considered. Dawson and Pooley (2013) examined optimism among Australian adolescents during transition to college using Soenens et al.'s (2007) measure and found that PVF and PI were independently related to optimism for first-year college students. Such findings indicate that autonomy support during late adolescence should be measured in terms of PVF (alone or in conjunction with PI), which aligns with a SDT perspective on autonomy development (Ryan & Deci, 2000a).

Mageau et al. (2015) developed the P-PASS for use with French-speaking Canadian college students. The authors found that autonomy support (PVF) measured using the P-PASS positively predicted life satisfaction, self-esteem, and positive affect. The P-PASS demonstrates good psychometric properties during late adolescence; Cronbach alphas and factor analyses yield a two-factor structure for perceptions of mothers' and fathers' autonomy support and controlling parental behaviors (Mageau et al., 2015). Using the P-PASS, researchers have found that in late adolescence, higher levels of PVF are related to greater social competence (Ma & Wang, 2019) and self-efficacy with respect to time management (Won & Yu, 2018).

It is important to note that both measures were originally developed by researchers working

with adolescents outside of the United States. Soenens et al.'s (2007) measure was created for use with a sample of college students in Belgium, of which a majority (95%) commuted to college while living at home. The cultural context of Belgium places less emphasis on autonomy than does the United States (Hofstede, 2001); nevertheless, Soenens et al. (2007) reported that PVF was still positively related to psychosocial functioning in Belgian adolescents. The P-PASS was created for use with a sample of French-speaking Canadian adolescents, but English and French versions were developed simultaneously (Mageau et al., 2015). Despite a lack of research explicitly designed to examine cross-cultural measurement equivalency for the P-PASS, it has been successfully administered to adolescents from a wide range of cultural backgrounds, including Romanian (Liviñi & Iliescu, 2019), Tibetan and Han Chinese (Lan, Ma, & Radin, 2019), Chinese (Ma & Wang, 2019), and American (Won & Yu, 2018).

#### *Conclusions From Late Adolescence*

The study of parental autonomy support during late adolescence has focused almost exclusively on college students, neglecting to consider the nature of this construct in the lives of adolescents who do not attend college. At the same time, the college context provides an excellent opportunity to clearly measure autonomy support and the distinction between PI and PVF—perhaps more so than in any other developmental period. The two measures of autonomy support available for use with older adolescent samples are the Soenens et al. (2007) adaptation of the POPS and the P-PASS. Both are used in research conducted in numerous societies, but evidence of measurement equivalence is not clear for either.

#### CONCLUSION

Across development, children and adolescents strive to engage in decision making and behavior that increasingly reflects autonomous thought and action. Not surprisingly, appropriate and effective parenting across development supports children's efforts in this regard. Efforts to assess parental autonomy support reflect variability in methodological approaches and the nature of what autonomy support means. A review of these methods indicates two important themes.

First, the most appropriate methods for measuring parental autonomy support differ across development. The most frequently used approach to measuring autonomy support during infancy and early childhood involves the observational coding of parental behavior during parent-child interactions focused on play or achieving a specified goal (e.g., cleanup tasks). Such tasks are highly appropriate given the limited (or nonexistent) ability of young children to report on their parents' behaviors and the limitations (particularly social desirability bias) associated with parent report. During adolescence, researchers rely on youth report of parents' behavior, as adolescents are reliable reporters of the parenting they receive. The measurement of autonomy support during middle childhood reflects developmental transitions in children's ability to accurately report on parental behaviors and presents the widest range of measurement approaches, including observation, child report, and parent report. Overall, it is important to assess autonomy support in ways that have ecological validity and are relevant to both development and the research questions within specific studies. Whereas free-play observational tasks are appropriate for assessing autonomy support in infancy and early childhood, it may be more important to middle-childhood outcomes that parents support autonomy during challenging tasks as well. At the same time, researchers who elect to rely on child report or parent report in measuring parental autonomy support during middle childhood should remain cognizant of the potential shortcomings of each approach. During middle childhood (especially early in middle childhood), children might not be reliable and accurate reporters of parenting behaviors. At all ages, parents' own self-ratings may paint an overly positive picture of their behaviors.

Second, development has implications for the meaning of autonomy and thus the way parental autonomy support is conceptualized. Such variability has implications for measurement. During infancy and early childhood, more global measures of autonomy support are appropriate, as issues of "authenticity" in behavior require cognitive abilities that do not develop until later. During adolescence, it is critically important that measures of autonomy support differentiate between PI and PVF, as a large literature has indicated that there are meaningful differences



in adolescence between behaving independently and behaving authentically. Such differences are of particular importance among ethnic minority adolescents and adolescents from more interdependent cultures, with PI less likely to be linked with positive adjustment in such groups. Again, middle childhood represents a period of transition during which researchers need to pay attention to children's developmental competencies and to whether measures being applied are appropriate in terms of how the construct of autonomy support is conceptualized at different ages.

This is an exciting time for researchers who study parental autonomy support, as the past few decades have yielded theoretical and methodological advances that clarify the nature of autonomy and autonomy support in the lives of children—and of adolescents in particular. The current challenge for researchers is to be sure that their selection of measures of parental autonomy support are both developmentally appropriate and theoretically and conceptually grounded. The manner in which these two needs intersect is not always straightforward. Researchers who study parental autonomy support must be both knowledgeable and deliberate as they set forth on the path toward increasing our understanding of how parents best support the development of autonomy across development.

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