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Socializing Toddlers: Autonomy-supportive Parenting Practices and Potential Risk Factors

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Résumé

Selon la théorie de l'auto-détermination, l'autonomie est un besoin universel de base qui, lorsque soutenu, permet aux individus de mieux fonctionner et de vivre plus de bien-être psychologique (p. ex., Deci & Ryan, 2008). Le style parental des parents qui soutiennent l'autonomie de leur enfant est caractérisé par le soutien du fonctionnement autodéterminé de ce dernier. Sa définition traditionnelle inclut des pratiques telles qu'offrir des explications et des choix lors des requêtes, communiquer de l'empathie, et encourager les prises d'initiatives tout en minimisant l'utilisation d'un langage contrôlant (p. ex., Soenens et al., 2007). Les bénéfices d'un style parental qui soutient l'autonomie d'un enfant ont été bien documentés (p. ex., Grolnick, Deci, & Ryan, 1997), toutefois, peu d'études ont été effectuées auprès des bambins. Or, cette thèse visait à enrichir la littérature sur le « parentage » en explorant les pratiques soutenantes qui sont utilisées par des parents de bambins dans un contexte de socialisation (étude 1), ainsi qu'en examinant les facteurs qui peuvent brimer leur mise en pratique (étude 2).

La première étude a examiné un grand nombre de pratiques de socialisation que les parents qui favorisent davantage le soutien à l'autonomie (SA) pourraient utiliser plus fréquemment lorsqu'ils font des demandes à leurs bambins. Cette étude nous a permis d'explorer comment les parents manifestent leur SA et si le SA dans ce type de contexte est associé à un plus grand niveau d'internalisation des règles. Des parents (N = 182) de bambins (M âge = 27.08 mois) ont donc été invités à rapporter la fréquence avec laquelle ils utilisent 26 pratiques potentiellement soutenantes lorsqu'ils demandent à leurs bambins de compléter des tâches importantes mais non intéressantes et de rapporter à quel point ils valorisent le SA. Huit pratiques ont été identifiées comme étant soutenantes: quatre façons de communiquer de

l'empathie, donner des explications courtes, expliquer pourquoi la tâche est importante, décrire le problème de façon informative et neutre, et mettre en pratique le comportement désiré soi-même. De plus, l'ensemble des huit pratiques corrélait positivement avec le niveau d'internalisation des bambins, suggérant aussi que celles-ci représentent bien le concept du SA. Des études futures pourraient tenter de répliquer ces résultats dans des contextes potentiellement plus chargés ou ébranlants (p. ex., réagir face à des méfaits, avec des enfants souffrant de retard de développement).

La deuxième étude a poursuivi l'exploration du concept du SA parental en examinant les facteurs qui influencent la fréquence d'utilisation des stratégies soutenantes dans des contextes de socialisation. Puisque la littérature suggère que le stress parental et le tempérament difficile des bambins (c.-à-d., plus haut niveau d'affectivité négative, plus faible niveau de contrôle volontaire/autorégulation, plus faible niveau de *surgency*) comme étant des facteurs de risque potentiels, nous avons exploré de quelle façon ces variables étaient associées à la fréquence d'utilisation des stratégies soutenantes. Les buts de l'étude étaient: (1) d'examiner comment le tempérament des bambins et le stress parental influençaient le SA parental, et (2) de vérifier si le stress parental médiait la relation possible entre le tempérament des bambins et le SA parental. Le même échantillon de parents a été utilisé. Les parents ont été invités à répondre à des questions portant sur le tempérament de leur enfant ainsi que sur leur niveau de stress. Les résultats ont démontré qu'un plus grand niveau d'affectivité négative était associé à un plus grand niveau de stress parental, qui à son tour prédisait moins de SA parental. De plus, le stress parental médiait la relation positive entre l'autorégulation du bambin et le SA parental. Des recherches futures pourraient évaluer des interventions ayant pour but d'aider les parents à préserver leur attitude soutenante durant des contextes de

socialisation plus difficiles malgré certaines caractéristiques tempéramentales exigeantes des bambins, en plus du stress qu'ils pourraient vivre au quotidien.

Mots-clé: Soutien à l'autonomie, parentage, bambins, stress parental, affectivité négative, contrôle volontaire, internalisation, théorie de l'auto-détermination.

Abstract

According to self-determination theory, psychological autonomy is a basic, universal need that, when supported, enables individuals to function more positively and experience greater psychological well-being (e.g., Deci & Ryan, 2008). Parenting that supports the autonomy of a child is classically defined as the parental support for their self-determined functioning and includes practices such as providing rationales and choices for requests, communicating empathy, and encouraging initiatives while using non-controlling language (e.g., Soenens et al., 2007). The benefits of autonomy-supportive parenting have been well-documented (e.g., Grolnick, Deci, & Ryan, 1997) however, few studies to date have been conducted with toddlers. The present thesis thus sought to enrich the parenting literature by exploring what autonomy-supportive parenting practices are used by parents of toddlers in a socialization context (Study 1) and by examining the factors that may hinder their use (Study 2).

The first study examined a wide range of socialization practices that parents who favoured AS to a greater extent may use more frequently when making requests to their toddlers. The study allowed us to explore how parents manifest AS towards their toddlers and whether AS in this context is associated with greater rule internalization. Parents (N = 182) of toddlers (M age = 27.08 months) were thus asked to report the frequency at which they used 26 potentially autonomy-supportive practices when asking their toddlers to complete important yet uninteresting activities and the extent to which they valued AS. Eight practices were identified as being autonomy-supportive: four forms of communicating empathy, providing short rationales, explaining why the task is important, giving an informational and neutral description of the problem, and modeling the desired behaviour. The set of eight

practices was positively associated with toddlers' level of internalization, further suggesting that they embodied the concept of AS. Future studies may seek to replicate these findings in more potentially volatile or distressing contexts (e.g., reacting to misdeeds, with children with developmental delays).

The second study extended the results further by examining what factors influenced the use of parental AS in socialization contexts. Since the literature points to parental stress and toddler difficult temperament (i.e., higher levels of negative affectivity, lower levels of effortful control, and lower levels of surgency) as possible risk factors, we explored how they related to the frequency of use of autonomy-supportive practices. The goals of the study were: (1) to examine how toddlers' temperament and parental stress influenced parental AS, and (2) to verify if parental stress played a mediating role in the putative relationship between toddlers' temperament and parental AS. Using the same sample, parents were asked to answer questions regarding their toddler's temperament and their own stress levels. The results showed that greater child negative affectivity was associated with greater parental stress, which in turn predicted lower parental AS. Moreover, parental stress partially mediated the positive relationship between child effortful control and parental AS. Future research could investigate possible interventions that aim to help parents preserve their autonomy-supportive stance during challenging socialization contexts, in the face of exacting child temperamental characteristics, and in addition to the stress brought on by daily life.

Keywords: Autonomy support, parenting, toddlerhood, parental stress, negative affectivity, effortful control, surgency, internalization, self-determination theory

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List of Symbols and Abbreviations

APA	American Psychological Association
AS	Autonomy support
α	Cronbach's index of internal consistency
b	Estimated values of unstandardized regression coefficients
CI	Confidence interval
DV	Dependant variable
ECBQ	Early Childhood Behaviour Questionnaire
e.g.	For example
et al.	And others
F	F (Fisher's F ratio) distribution
IV	Independent variable
i.e.	That is
κ^2	Kappa squared mediation effect size
KMO	Kaiser-Meyer-Olkin
M	Mediator
M	Sample mean
ML	Maximum Likelihood
n	Number of cases
N	Total number of cases
NICHD	National Institute of Child Health and Human Development
OLS	Ordinary Least Squares path analysis

p	Probability value
PAS	Parent Attitude Scale
Ph.D.	Doctor of Philosophy degree
PSS-10	Perceived Stress Scale
PSQ	Problems in Schools Questionnaire
r	Estimate of the Pearson product-moment correlation coefficient
R^2	Multiple correlation squared; measure of strength of association
SA	Soutien à l'autonomie
SD	Standard deviation
SDT	Self-Determination Theory
SPSS	Statistical Package for the Social Sciences
SSHRC	Social Sciences and Humanities Research Council
t	Sample value of the t-test statistic
&	And
η^2	Eta squared; measure of strength of relationship
χ^2	The chi-square distribution

To my Papou who loved ALL children.

You were the most playful, imaginative, loving, and generous grandfather a granddaughter could have ever asked for. If I could one day be at least half the grandparent you were to me and to your other grandchildren, I know they would be as lucky as I was to have had you in my life. They would be unconditionally loved, cherished, and supported, like you were to me right until the day you left us.

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Chapter I: Introduction

From the moment a child is born, parenting becomes a life-long investment. From teaching them how to read, talk, walk, to instilling values, and imposing rules, parents exert an enormous amount of influence over their child's development. Moreover, while being a parent can be largely rewarding, it can also be equally stressful. Parents are inevitably faced with numerous demands that leave them feeling worried, afraid, angry, and stressed, in addition to having to deal with their child's unique temperamental disposition. Fostering a child's learning, well-being, and social functioning while respecting their own individuality can thus be a meaningful yet humbling endeavour.

Autonomy support is key in motivation research and its conceptualization in socialization contexts with children remains unclear (Côté-Lecaldare, Joussemet, & Dufour, in press). The present thesis thus contributes to this inquiry by 1) Identifying autonomy-supportive socialization practices that parents use with their toddlers; 2) Evaluating how toddlers' temperament relate to their parent's demonstration of autonomy support; and 3) Whether parental stress acts as a mediator in this latter relationship.

The Goal of Socialization: Internalization and its Challenges

For parents, the main goal when socializing their children is to eventually get them to internalize rules, values and socially acceptable behaviours. *Socialization* in the context of child development concerns how parents help children acquire the skills necessary to function optimally within society (Maccoby, 1984). In the early years, parents help their children internalize socially and culturally sanctioned norms, attitudes, values, and behaviours. *Internalization* refers to the process of accepting values and behaviours, identifying them as our own, and carrying them out volitionally (Deci & Ryan, 2000; Kuczynski & Kochanska,

1990). This process is crucial because it fosters social integration (Grolnick, Deci, & Ryan, 1997). Also, it has a positive impact on children's learning, well-being, and psychosocial development (Joussemet, Landry, & Koestner, 2008). The present thesis pertains to factors that affect the strategies used by parents to socialize their toddlers.

The process of internalization can prove to be difficult, perhaps especially during toddlerhood as much of the demands placed upon children during this period are not intrinsically motivating, let alone interesting. For example, toddlers explore their surroundings and pursue activities that they perceive as enjoyable (Ryan, 1995; Ryan & Deci, 2000), like playing with their toys or crawling around their room (i.e., intrinsically motivated pursuits). On the other hand, activities that are not perceived as enjoyable include those where children behave as a direct function of their parents' rules, demands, threats, or rewards (i.e., extrinsically motivated pursuits), such as when they are promised desert if they eat all their food (Grolnick et al., 1997). Moreover, as toddlers grow and learn to self-regulate autonomously, parents challenge their children with more complex requests (Gralinski & Kopp, 1993). Although continuously testing toddlers' abilities as they mature and develop is an appropriate and necessary socialization tool for parents, it can be difficult for toddlers to engage in more developmentally difficult requests since their cognitive, language, socio-emotional, and self-regulation skills are still underdeveloped compared to older, school-aged children (Blum, Williams, Friman, & Christophersen, 1995). For instance, toddlers have a hard time communicating their emotions verbally, their ability to self-regulate and tolerate frustration is not fully developed, and they cannot always understand the verbal explanations adults give them (Blum et al., 1995). Nevertheless, it is important that children learn to effectively comply and integrate parental demands within a socialization context. The

ultimate challenge thus seems to lie in the balance of doing so while also respecting their developmental level and their growing psychological autonomy.

Psychological Needs According to Self-determination Theory

Psychological autonomy. This refers to the need to feel that our actions emanate from ourselves and that we are self-determined (deCharms, 1968; Deci & Ryan, 2000; Ryan, Deci, Grolnick, & La Guardia, 2006). In other words, it connotes an inner endorsement of our actions. Self-determined actions are intentional behaviours that are initiated and regulated through choice, as an expression of oneself. They are associated with a fuller, more integrated functioning (Deci & Ryan, 1987; 2000; Joussemet et al., 2008; Ryan & Deci, 2000). Psychological autonomy is not to be confused with independence, which refers to the idea of not relying on others for help and not being influenced or controlled by others in matters of opinion, conduct, etc. (Deci & Ryan, 2000; Joussemet et al., 2008). However, one can in fact be autonomous while relying on others for help or support (Grolnick et al., 1997). Autonomy is about volitional and harmonious functioning as opposed to one that is more pressured, conflicted, or externally contingent (Joussemet et al., 2008).

According to self-determination theory (SDT; Deci & Ryan, 1980; 1985; 1991; 2000; 2008), a motivation and personality meta-theory, psychological autonomy (along with competence and relatedness) is one of three basic and universal psychological needs that, when supported, are associated with numerous positive effects on well-being, development, and motivation. The need for *competence* refers to the desire to be effective in our environment (Grolnick, 2003). When the feeling of competence is high, individuals' inherent motivation in doing the activity persists which, in turn leads to greater learning (White, 1959). Finally, *relatedness* is the need to feel loved by and connected to key people in one's

environment (Baumeister & Leary, 1995; Grolnick et al., 1997). According to Harlow (1958), without a sense of relatedness, physical and psychological development is hindered.

The impact of social contexts on psychological needs. What importantly distinguishes SDT from other theories of motivation is its focus on how social and cultural factors facilitate or undermine the satisfaction of basic needs, and its subsequent impact on psychosocial adjustment and behavioural outcomes (Deci, Ryan, & Guay, 2013). SDT research demonstrates that the slightest hindrance to any of these three psychological needs will have a significant negative impact on motivation, on the level of internalization of behavioural regulation in that context, and on overall adjustment (Deci, Eghrari, Patrick, & Leone, 1994; Deci & Ryan, 1987; Flink, Boggiano, & Barret, 1990; Grolnick & Ryan, 1989; Jang, Reeve, & Deci, 2010; Joussemet, Koestner, Lekes, & Houlfort, 2004; Joussemet, Koestner, Lekes, & Landry, 2005). In contrast, social contexts that support experiences of competence, relatedness, and psychological autonomy are theorized to foster the most volitional and optimal forms of motivation and engagement for activities, including greater school performance, persistence, and creativity, as well as greater well-being and psychosocial adjustment (Deci et al., 2013; Hart, Newell, & Olsen, 2003; Ryan & Deci, 2000). Furthermore, contexts that meet these needs are more likely to contribute to the internalization of behavioural regulation (Kelman, 1961; Meissner, 1981; Savard, 2012; Schafer, 1968). In children, this process of internalization occurs when they fully endorse and integrate the value in important but uninteresting activities (e.g., brushing teeth, going to bed on time) and social norms (e.g., Deci et al., 1994; Deci et al., 2013; Schafer, 1968).

Internalization: Level of Commitment to Compliance

Researchers often assess the process of internalization in young children by measuring the nature of their type of compliance to requests. Compliance is an early form of self-regulation because it requires the ability to start, stop, and modulate one's conduct according to parental demands (Emde, Johnson, & Easterbrooks, 1987; Gralinski & Kopp, 1993; Kopp, 1982; Kwon & Elicker, 2012). The ability to comply with requests has been regarded by many researchers as an important developmental milestone (Erikson, 1963; Flavell, 1977; Spinrad et al., 2012), with toddlers first demonstrating this ability between 12 and 18 months (Kopp, 1982). Although it is easy to attain toddler compliance by offering bribes or by threatening to punish them, the challenge lies in doing so without hindering toddlers' need for psychological autonomy (Deci & Ryan, 2000; 2008; Deci et al., 2013; Grolnick, 2003). Moreover, when toddlers are compliant, it is important to assess their level of commitment to compliance as mere compliance is not a reliable indicator of their internalization of requests (Kochanska & Aksan, 1995).

Toddlers' compliance and noncompliance have been recognized as central in the development of internalization and problem behaviours, respectively (Keenan, Shaw, Delliquadri, Giovannelli, & Walsh, 1998; Kochanska & Aksan, 1995). *Committed compliance* is defined as a genuine eagerness and willingness to follow parental requests ("Do contexts") or prohibitions ("Don't contexts"; Kochanska & Aksan, 1995). It's an enthusiastic form of compliance that stems from within, that is internally motivated, and that does not require sustained external control (Kochanska & Kim, 2013; Spinrad et al., 2012). It predicts the level of internalization of rules and is an indicator of early conscience development and emerging self-regulation (Kochanska & Aksan, 1995; Kochanska, Aksan, & Koenig, 1995; Kochanska,

Coy, & Murray, 2001; Kochanska, Koenig, Barry, Kim, & Yoon, 2010; Kochanska, Tjebkes, & Forman, 1998; Laible & Thompson, 2000). On the other hand, *situational compliance* is an externally motivated type of cooperation where the toddler does not seem to wholeheartedly embrace parental requests or prohibitions and requires frequent external prompting to perform the requested behaviour (Kochanska et al., 2001). Such compliance is inconsistent and dependent upon external parental control (Kochanska, 2002). Situational compliance is not related to internalization whereas *noncompliance* (i.e., not obeying), is negatively related to it (Kochanska, 2002; Kochanska & Aksan, 1995).

Parenting That Supports Psychological Autonomy: Definition and Impacts on Child Development

Parenting that supports the autonomy of a child is called *autonomy-supportive parenting*. It refers to the degree to which parents support their children's volitional functioning, and to the extent to which they recognize that their children have needs and feelings that are unique, and different from their own (Grolnick et al., 1997; Ryan et al., 2006). Supporting a child's autonomy involves fostering self-regulation instead of mere compliance (Joussemet et al., 2008). Autonomy support (AS) includes specific practices (Soenens et al., 2007). That is, prior research has been operationalizing AS by means of four key elements. The first is providing *rationales* for requests in order to help the children understand why it is important (Deci et al., 1994). Secondly, a parent can provide *choices* on how to accomplish a task that is developmentally appropriate in order to encourage a sense of volition in the child (Grolnick, Gurland, DeCourcey, & Jacob, 2002). Thirdly, *acknowledging children's perspective and feelings* (i.e., communicating empathy) conveys an understanding and respect for their point of view (Deci et al., 1994; Grolnick et al., 1997). Finally, *encouraging self-*

initiated activities while *minimizing the use of controlling techniques* when making requests inspires initiative and validates individuality (e.g., non-controlling language – absence of *shoulds*, *musts* and *have tos*; Deci et al., 1994; Grolnick et al., 1997; Grolnick et al., 2002; Koestner, Ryan, Bernieri, & Holt, 1984; Ryan, 1982).

AS has been associated with many developmental benefits in school-aged children, such as better psychological well-being and emotional regulation, as well as increased social, and communicative competencies with peers (Hart et al., 2003; Ryan et al., 2006). Other positive effects include increased intrinsic motivation, greater peer acceptance, and a decrease in incidences of internalized (e.g., depression) and externalized difficulties (e.g., noncompliance towards adults; Hart et al., 2003; Ryan et al., 2006).

Literature on Autonomy-supportive Parenting During Toddlerhood

Toddlerhood is generally considered to include the period between 16 to 36 months of age (Lally et al., 2003). Autonomy-supportive parenting has also been studied during this developmental stage (Bernier, Carlson, & Whipple, 2010; Bernier, Matte-Gagné, Bélanger, & Whipple, 2014; Frodi, Bridges, & Grolnick, 1985; Grolnick, 2003; Grolnick, Frodi, & Bridges, 1984; Joussemet, Savard, Laurin, & Rouvès, 2007; Whipple, Bernier, & Mageau, 2011). Research has shown that AS brings about multiple benefits for toddler development including heightened internalization of rules, values, and behaviours. For instance, Kochanska and Aksan (1995) showed that *gentle guidance* (i.e., characterized by a parent managing their child's behaviour in a positive manner rather than using power-assertion; Blandon & Volling, 2008), a concept similar to AS, was associated with greater levels of committed compliance, an early form of internalization and self-regulation (Kochanska, 2002; Kochanska et al., 2001).

Grolnick, Frodi, and Bridges (1984) examined the impact of mothers' autonomy-supportive behaviours on their 12-month-old infants' subsequent exploratory behaviours. The results showed that children of mothers who used more autonomy-supportive practices spent more time engaging in task-related behaviours during play time. Frodi, Bridges, and Grolnick (1985) tested the same sample of mothers and their infants eight months later and found that the link between mothers' autonomy-supportive practices and their children's motivation during play time had persisted. Moreover, in a study conducted by Bernier, Carlson, and Whipple (2010), maternal AS was shown to be a strong predictor of later self-regulatory abilities in toddlers aged 18 and 26 months. In addition, mothers who were more autonomy-supportive with their child at 15 months had children who would perform better on working memory and categorization tasks at 18 months. Maternal AS was also examined in regards to infant security of attachment. Specifically, Whipple, Bernier, and Mageau (2011) found that maternal AS predicted 15–month-old toddlers' security of attachment over and above maternal sensitivity and family socio-economic status. A recent study conducted by Bernier, Matte-Gagné, Bélanger, and Whipple (2014) also found that both maternal sensitivity and AS accounted for the relation between maternal and child attachment. In summary, autonomy-supportive parenting brings about many developmental benefits for toddlers including greater self-regulatory abilities and persistence on difficult tasks, better security of attachment, and optimal cognitive development.

Joussemet, Savard, Laurin, and Rouvès (2007) also explored specific autonomy-supportive behaviours toward toddlers. In a pilot study, parents of toddlers were interviewed and asked what practices they used to motivate their children to cooperate with rules and to refrain from doing forbidden activities. Based on research conducted by Kochanska and

colleagues (2001), these authors distinguished *Don't* contexts (refraining to engage in a pleasant but forbidden activity; e.g., throwing toys) from *Do* contexts (engaging in an important but unpleasant activity; e.g., putting toys away). Joussemet and her colleagues (2007) asked parents what they did in order to get their children to behave in a certain way, using a list of parenting practices inspired from parental interviews. Parents were also asked to rate vignettes from the Problems in Schools Questionnaire (PSQ; Deci, Schwartz, Sheinman, & Ryan, 1981), to assess their motivational approach (AS vs. control). The findings showed that parents of toddlers who endorsed autonomy-supportive items on the PSQ used socialization practices that were different from more controlling parents. Specifically, autonomy-supportive parents used the following strategies more frequently than controlling parents: modeled desired behaviour, made mundane but important activities more fun (e.g., sing a song while sitting in a stroller) and warned children in advance before making their demands (e.g., "Bedtime will come when story time is over").

That being said, research about AS during toddlerhood is still in its early beginnings because much of the current studies have not only been done with older children but have examined AS in game-like contexts as opposed to potentially emotionally-charged (i.e., "hot"; Kim, Nordling, Yoon, Boldt, & Kochanska, 2013) socialization contexts. Therefore, given where the literature stands, the first goal of the present thesis was to explore how parents manifest AS to toddlers, in the context of making requests.

The Impact of Stressors on Parenting

It is much easier to be autonomy-supportive to a child during play time because there is no goal other than to take pleasure in the activity. In contrast, socialization contexts are much harder as they are more goal-directed (i.e., teach an important behaviour/value).

Moreover, parents know that their children are more likely to fuss when asked to do something they find uninteresting, which makes the context all the more challenging and potentially difficult for the parent to cope with. Parenthood is thus a very important and demanding task in adult life (Nelson, Kushlev, & Lyubomirsky, 2014). It requires a lot of patience, time, energy, and personal resources that are easily expended. It can be arduous to maintain AS, even when parents value supporting the growing autonomy of their child, and despite the fact they may know or believe that thwarting autonomy leads to diminished well-being, less internalization, and poorer motivation (Deci & Ryan, 1987; Grolnick, 2003; Joussemet et al., 2005; Ryan et al., 2006). According to Grolnick (2003), parents don't necessarily choose to employ less autonomy-supportive strategies but are rather subject to everyday stressors that hinder their ability to use this constructive approach. Indeed, Grolnick (2003) identified three types of pressures that can interfere with parents' efforts to be autonomy-supportive. Firstly, *pressure from within* represents the internal psychological processes that incite parents to be controlling. Sometimes parents become enmeshed or ego-involved in their children's performances, rendering their own self-esteem contingent upon their children's performance. Grolnick, Gurland, DeCourcey, and Jacob (2002) conducted an experiment wherein parents and their children were asked to complete school-like tasks. Parent-child dyads were assigned to a high-pressure condition (generating parental ego-involvement) or a low-pressure condition (not generating parental ego-involvement). In the former group, parents were informed that their child would be tested, that certain standards had to be met, and that they were responsible for their child's performance. In contrast, in the latter group, parents were told that there were no standards and that they were not responsible for their child's performance. Results showed that induced pressure led to more controlling parenting

behaviours, and that this effect was more pronounced when parents' attitude towards AS was low. Thus, when parents felt compelled to "make their child do well", it had a strong negative impact that led to reduced AS and increased control.

Another type of pressure that can undermine parenting behaviour is *pressure from above,* which refers to the factors from the immediate environment in which parents find themselves that inhibit AS (Grolnick, 2003). Indeed, research has shown that the quality of parenting is vulnerable to environmental conditions (Belsky, 1984; McLoyd, 1990). Sources of high stress, such as daily hassles (Crnic & Greenberg, 1990; Jain, Belsky, & Crnic, 1996), financial difficulties (Lempers, Clark-Lempers, & Simons, 1989; Peterson & Hawley, 1998; Sampson & Laub, 1994), unemployment (Kotch et al., 1997; McLoyd, 1989; McLoyd, Jayaratne, Ceballo, & Borquez, 1994), and work-related strain (Harvey, 1998; Repetti & Wood, 1997; Taylor, Roberts, & Jacobson, 1997) compromise parenting quality.

Several studies, for example, have demonstrated a clear link between financial troubles and parental behaviours characterized as inconsistent and low in nurturing (e.g., Elder, Nguyen, & Caspi, 1985), as well as between stressful family circumstances and disruptive parenting (Patterson, DeBaryshe, & Ramsey, 1989). Parents of younger children also reported using more control after a stressful day at work (Repetti, 1994; Repetti & Wood, 1997). In a study conducted by Conger and colleagues (1992), overall stress was found to decrease parents' level of functioning, which in turn led them to being less involved and caring towards their adolescents. Similar results were obtained by Grolnick, Weiss, McKenzie, and Wrightman (1996), which found that negative life events were associated with less autonomy-supportive behaviours by mothers, when controlling for socio-economic status.

Zussman (1980) conducted a particularly interesting study designed to replicate the "overloaded" state parents often find themselves in and had them perform a cognitive task (complete a mental anagram), in the presence of their children (a toddler and a preschooler), in a room which held difficult to operate toys and what were described as "attractive nuisances" (e.g., stack of paper). The families were observed under two conditions: a high-stress situation where parents had to complete the cognitive task and watch their children at the same time and a low-stress condition where parents simply had to supervise their children. The results demonstrated that when parents were in the high-stress condition they tended to be less responsive and helpful towards their preschooler. When they did attend to their toddler, they were more confining, punitive, and reproachful towards them. In summary, the literature clearly shows that stressors make it difficult for parents to maintain an autonomy-supportive stance, even if they value it.

In addition to the pressures "from within" and "from above" that may compromise the quality of parenting, parents can experience *pressures from below*. This type of pressure stems from children's behaviour. In point of fact, children's characteristics do affect their parents' behaviours (Bell, 1968). Some personality characteristics such as children's temperament, especially when it is difficult, have been shown to have a negative impact on parenting (Lengua & Kovacs, 2005; Lerner, 1993; Sanson, Hemphill, & Smart, 2004). *Temperament* refers to biologically-based, stable individual differences in behavioural and emotional responses (Buss & Plomin, 1984; Rothbart & Bates, 2006; Thomas & Chess, 1977) that have a direct impact on children's later adjustment and on the quality of parent-child relationships (Rothbart & Bates, 2006). The second goal of the present thesis was to examine

the relationship between toddlers' temperament and parental AS, as well as the possible mediating role of parental stress in this association.

Difficult Child Temperament

Research has clearly demonstrated a link between children's *difficult temperament* and poorer parenting quality (for a review, see Paulussen-Hoogeboom, Stams, Hermanns, & Peetsma, 2007; Scaramella & Leve, 2004). Characteristics of a difficult temperament include the tendency to withdraw or be inhibited when faced with novel situations or new people, a lack of persistence, difficulty in focusing and sustaining attention, difficulty being soothed, irritability, low positivity, impulsivity, resistance to control, and higher activity level (Kagan, 1998; Rothbart & Bates, 1998; Scaramella & Leve, 2004; Thomas & Chess, 1977; Wachs, 1999). It is composed of three dimensions: surgency, effortful control, and negative affectivity (Rothbart & Bates, 2006). First, the dimension of *surgency* refers to the degree to which a child exhibits a generally happy mood, is active, and enjoys seeking stimulation (Putnam, Ellis, & Rothbart, 2001). Second, the self-regulatory dimension of temperament is e*ffortful control* and refers to the capacity to voluntarily suppress a dominant response in order to plan and execute a more adaptive one (Rothbart, 2004; Rothbart & Bates, 2006). Children differ in their ability to execute effortful control by how effectively they can manage their negative emotions, shift their attention from one event to the next, and by how well they manage to inhibit their responses. The third dimension of temperament is *negative affectivity* and is characterized by intense negative reactions (including frustration towards limitations, fearfulness towards novelty, and sadness; Rothbart, Ahadi, & Hershey, 1994; Sanson et al., 2004), irritability, difficulty being soothed, and an overall bad mood (Paulussen-Hoogeboom et al., 2007). It is the core dimension of the difficult temperament concept and is said to be

what makes children hard to parent (Bates, 1989; Chess & Thomas, 1984; Lee & Bates, 1985, Prior, 1992; Shiner, 1998).

The Link Between Child Temperament and Parenting Quality

Negative affectivity. The literature concerning the link between parenting and children's negative affectivity is mixed (for a review, see Belsky & Jaffee, 2006; Paulussen-Hoogeboom et al., 2007; Sanson & Rothbart, 1995). On the one hand, some studies indicate that children who exhibit high levels of unpleasant emotions are generally at risk for eliciting parenting that is angry or coercive, highly controlling, and overall negative (for a review, see Scaramella & Leve, 2004). For example, children's negative affectivity has been found to be associated with hostile and harsh parenting behaviours (Katainen, Räikkönen, Keskivaara, & Keltikangas-Järvinen, 1999; Kochanska, Friesenborg, Lange, & Martel, 2004), parenting that can be described as "strict", "critical", "authoritarian" (Lee, Zhou, Eisenberg, & Wang, 2013; Lerner, 1993; Porter et al., 2005; Zhou, Eisenberg, Wang, & Reiser, 2004), and autonomy-thwarting (Van der Bruggen, Stams, Bögels, & Paulussen-Hoogeboom, 2010; Walling, Mills, & Freeman, 2007). On the other hand, mothers have been shown to be more involved and positive with children with negative affectivity (for a review, see Belsky & Jaffee, 2006; Paulussen-Hoogeboom et al., 2007; Sanson & Rothbart, 1995), or more sensitive (e.g., Crockenberg, 1986; Washington, Minde, & Goldberg, 1988; Zahr, 1991), when faced with this temperamental aspect. Lastly, other researchers found no association between negative affectivity and detrimental or supportive parental behaviours (e.g., Hagekull, Bohlin, & Rydell, 1997; Karraker, Lake, & Parry, 1994).

Surgency. Children high on this temperament dimension, also associated with extraversion, tend to express more positive emotionality, are more energetic and sociable.

These qualities are hypothesized to evoke more warm and joyful parenting behaviours (Prinzie, Stams, Deković, Reijntjes, & Belsky, 2009). Furthermore, according to Prinzie and colleagues (2012), they may facilitate more supportive, active, and assertive parenting practices. Perhaps children who are more enthusiastic and happy are easier to parent.

Effortful control. This self-regulatory component of temperament may also influence parenting. However, to the best of our knowledge, the impact of effortful control on parenting has received little attention. To date, certain studies have suggested that children who are characterized as having difficulty self-regulating may elicit more punitive and non-supportive behaviours from their parents (Eisenberg et al., 1999; Lytton, 1990). Indeed, children with low levels of effortful control, who often have more internalizing and externalizing difficulties than the norm, may pose a challenge for parents and thus be at risk of evoking controlling behaviours (Eisenberg et al., 2001). Perhaps if such children were more self-regulated, AS would come more easily to their parents, since they would no longer need to constantly monitor them?

The Impact of Parental Stress on Parenting Behaviours

Besides child characteristics, personal well-being has been said to influence parenting behaviours (Belsky, 1984; Belsky & Jaffee, 2006; Putnam, Sanson, & Rothbart, 2002). It is well established that mothers who are depressed or have depressive symptoms tend be more critical and display less affection towards their children (for a review, see Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Gondoli & Silverberg, 1997; Lagacé-Séguin & d'Entremont, 2006). Moreover, studies have shown that stress can make parents more irritable, impulsive, and psychological unavailable; characteristics that make a parent less likely to be autonomy-supportive (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Grolnick, 2003; McLoyd et al.,

1994; McLoyd & Wilson, 1991; Zussman, 1980). Furthermore, in high-stress situations, parents tend to focus on the immediate task at hand. Since AS involves offering rationales, choices, perspective-taking (i.e., conveying empathy), and encouraging initiatives while minimizing the use of controlling language (Deci et al., 1994; Koestner et al., 1984; Grolnick et al., 1997; Grolnick et al., 2002; Ryan 1982), it may seem counterproductive for parents to actually take the time to be autonomy-supportive when there seems to be more pressing matters to attend to.

In addition, as previously explained, surgency (i.e., extraversion) is a dimension of temperament that reflects an overall capacity for joy and positivity during interpersonal interactions (Prinzie, Stams, Deković, Reijntjes, & Belsky, 2009). This sociability, high energy, and positive affect are probably also reflected in the child's behaviour when they are interacting with their parent. Therefore, higher levels of extraversion may contribute to more stimulating, sensitive, warm, and assertive parenting behaviours (Prinzie et al., 2009); similar qualities to parental AS. Perhaps when children display more positive emotional expressivity, they generate less stress from their parent, which may help in receiving AS from their parents.

In summary, the literature suggests that when parents feel "pressures from below" as well as "pressure from within", it puts them in a more vulnerable position that may consequently undermine their autonomy-supportive parenting (Grolnick, 2003).

The Mediating Role of Parental Stress

Research has shown that parents' psychological well-being mediates the relationship between children's temperament and parenting behaviours (Laukkanen, Ojansuu, Tolvanen, Alatupa, & Aunola, 2014; Sanson & Rothbart, 1995; Teti & Gelfand, 1991). Indeed, there is some indirect support for the link between children's difficult temperament and mothers'

elevated stress levels (Gelfand, Teti, & Fox, 1992; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Mäntymaa, Puura, Luoma, Salmelin, & Tamminen, 2006; Webster-Stratton & Hammond, 1988), depressive symptoms (Cutrona & Troutman, 1986; Gowen, Johnson-Martin, Goldman, & Appelbaum, 1989), and low self-efficacy (Porter & Hsu, 2003; Teti & Gelfand, 1991). For instance, McLoyd and Wilson (1991) studied families going through financial trouble and found that it was predictive of mothers' psychological distress, which in turn was associated with higher use of punishments. Similarly, unemployed mothers of adolescents who displayed depressive symptoms also tended to be more punitive (McLoyd et al., 1994).

Overall, it appears that toddler temperament, parental stress, and parenting practices are inter-related. It has also been suggested that maternal well-being can function as a mediator of the negative link between infants' levels of negative affectivity and maternal sensitive caregiving (Mertesacker, Bade, Haverkock, & Pauli-Pott, 2004; Pauli-Pott, Mertesacker, Bade, Bauer, & Beckmann, 2000). In contrast, the impact of effortful control and surgency on parental stress has, to our knowledge, not been studied specifically.

In conclusion, to the best of our knowledge, the mediating function of parental stress in the association between child temperament and autonomy-supportive parenting has yet to be studied explicitly. Therefore, the goal of the second study of this thesis was to examine whether the parental experience of stress may mediate the potential link between toddlers' temperament (i.e., higher negative affectivity, lower effortful control, and higher surgency) and parental AS, in a socialization context.

Present Studies

The present thesis aimed to enrich the current literature on parenting by exploring how autonomy-supportive parenting tactics are manifested towards toddlers, particularly in a socialization context. In addition, we wished to explore some factors that can impede/promote the use of autonomy-supportive strategies. Two studies were conducted to this effect.

Study 1 served to explore a wide range of socialization practices that parents who favoured AS used on a daily basis with their toddlers. We wanted to identify what autonomy-supportive parents report doing when making requests to their toddler. Moreover, given how AS has been positively associated with internalization, we inquired if early AS in a socialization context was associated with greater levels of rule internalization by toddlers.

Study 2 further extended our findings on parental AS by examining what factors influence the extent to which parents display AS in socialization contexts. Since the current literature points to toddlers' temperament and parental stress as being possible factors, we explored how these variables related to the frequency of use of autonomy-supportive practices. Specifically, parental stress was theorized to act as a mediator of the relationship between toddler's temperament and parenting behaviours.

Chapter II

How to Support Toddlers' Autonomy: Socialization Practices Reported by Parents

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Authors' Contribution(s)

Eftichia Andreadakis: Article conceptualization, creator of Parenting Practices Questionnaire, recruitment, test administration, statistical analyses, results interpretation, article writing and editing.

Mireille Joussemet: Article conceptualization, co-creator of Parenting Practices Questionnaire, results interpretation assistance, article editing.

Geneviève A. Mageau: Statistical analyses and interpretation assistance.

How to Support Toddlers' Autonomy: Socialization Practices Reported by Parents

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Abstract

Autonomy-supportive parenting has been found to foster children's adjustment but relatively few studies have been conducted with toddlers. In the present exploratory study, parents (N = 182) reported what practices they use when asking their toddlers (M age = 27.08 months) to engage in important yet uninteresting activities. Parents rated twenty-six potentially autonomy-supportive practices, along with a well-known scale measuring the extent to which they have a positive attitude towards autonomy support (AS). Using factorial analyses, eight practices were identified: various ways to communicate empathy, providing developmentally appropriate rationales, describing the problem in an informational and neutral way, and modeling the requested behaviour. This subset of autonomy-supportive parenting practices was positively related with rule internalization by toddlers, thereby demonstrating their predictive validity. These preliminary findings may be useful in guiding future conceptual, empirical, and applied work on the support of toddlers' autonomy and its assessment in an emotionally-charged and challenging context.

Keywords: Parenting practices, socialization, autonomy support, toddlers, internalization.

How to Support Toddlers' Autonomy: Socialization Practices Reported by Parents

During toddlerhood, much of the activities that children engage in can be considered to be fun and intrinsically driven (e.g., playing with toys). However, as socializing agents, parents often make requests to their toddlers that compete with their immediate and often more enjoyable goals. *Socialization* refers to the process of teaching a child the skills necessary to effectively participate within their own society, which include internalizing norms, ideologies, customs, values, and behaviour (Maccoby, 1984). The process of *internalization* involves consolidating and embedding these social norms into our own self-identity and carrying them out of our own accord (Deci & Ryan, 2000; Kuczynski & Kochanska, 1990); an important developmental milestone in order to facilitate children's proper integration into society (Grolnick, Deci, & Ryan, 1997). Joussemet, Landry, and Koestner (2008) added that the process of internalization not only helps children live harmoniously within society, but also leads to better outcomes in their learning, psychosocial development, and overall well-being.

Toddlers' emerging ability to regulate their behaviour develops rapidly and parents expect them to comply with progressively greater and more complex demands (Gralinski & Kopp, 1993). It is not always easy for toddlers to engage in these requests as their cognitive, language, socio-emotional and self-regulation skills are limited compared to school-aged children (Blum, Williams, Friman, & Christophersen, 1995). For example, toddlers (i.e., children between 1 and 3 years of age) cannot always understand spoken explanations, they have a hard time verbalizing how they feel, and their tolerance to frustration is not yet well-developed (Blum et al., 1995).

The goal of this exploratory study is to search for ways in which parents of toddlers cope with the difficult task of simultaneously fostering their toddlers'

compliance/internalization of important social requirements (Kuczynski, 1984; Kuczynski, Kochanska, Radke-Yarrow, & Girnius-Brown, 1987; Lytton, 1980), while also tending to their growing autonomy (Deci, Ryan, & Guay, 2013; Grolnick, 2003; Zigler & Child, 1973). The present study aims to help answer the question: When parents value supporting their toddler's autonomy, how do they go about making requests?

Psychological autonomy (or self-determination) is a fundamental need (Deci & Ryan, 2000). According to self-determination theory (SDT; Deci & Ryan, 2000; 2008) optimal human development, internalization and well-being depend on the satisfaction of this innate psychological need, along with competence (Bandura, 2012; White, 1959) and relatedness (Baumeister & Leary, 1995; Harlow, 1958). The need for autonomy refers to the feeling of having self-governed behaviours; meaning actions stemming from a sense of self (deCharms, 1968; Deci & Ryan, 2000; Ryan, Deci, Grolnick, & La Guardia, 2006). This basic psychological need is said to be universal (Chirkov & Ryan, 2001; Jang, Reeve, Ryan, & Kim, 2009; Lynch, La Guardia, & Ryan, 2009; Marbell & Grolnick, 2013).

Since parents play a central role in the early years of a child's development (Masten & Shaffer, 2006; NICHD, 2006), the degree to which their parenting style satisfies their young children's need for autonomy is seen as a key determinant in the promotion of internalization and adjustment (Ryan et al., 2006). The optimal, authoritative parenting style (Baumrind, 1967) is composed of three key dimensions: structure, warmth, and psychological autonomy (Gray & Steinberg, 1999). It features a child-focused approach to discipline where parents establish limits and standards while remaining responsive to their child's needs and respecting his/her individuality (Baumrind, 1967; 1991). Authoritative parents are characterized as listening to their children, encouraging their autonomy, providing consistent and fair structure,

as well as a warm relational environment (Aunola & Nurmi, 2005; Barber & Olsen, 1997; Gray & Steinberg, 1999; Grolnick & Ryan, 1989; Schaefer, 1965; Steinberg, 1990).

One context in which parents are more likely to thwart their child's autonomy is when they elicit compliance to their requests. Pressure may seem an effective socialization tactic but controlling practices thwart children's autonomy, well-being, and ultimately hinder their internalization of rules (Grolnick & Ryan, 1989; Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Ryan and Deci (2002) recommend supporting children's need for autonomy instead, even when prompting important (and possibly uninteresting) behaviours.

Autonomy-supportive parenting refers to the degree to which parents recognize that their children have needs and feelings that are unique and different from their own, respect/support children's ideas, interests, and feelings (Ryan et al., 2006), and provide meaningful choices and relevant rationales when introducing rules (Soenens et al., 2007). Parents who support their children's autonomy aim to foster internalization and self-regulation instead of mere compliance (Joussemet et al., 2008). Autonomy support (AS) is typically defined by four key elements (Deci, Eghrari, Patrick, & Leone, 1994; Koestner, Ryan, Bernieri, & Holt, 1984). The first is *providing rationales* for requests in order to help the child understand why these are important (Deci et al., 1994). The second is *encouraging self-initiated activities* and providing *choices* on how to accomplish the requested task (Grolnick, Gurland, DeCourcey, & Jacob, 2002). Thirdly, *acknowledging the child's perspective and feelings* (i.e., communicating empathy) conveys an understanding of the child's experience (Deci et al., 1994; Grolnick et al., 1997). Finally, *minimizing the use of controlling language and tactics* when making requests expresses respect rather than power assertion (e.g., avoiding *shoulds*, *musts* and *have tos*; Deci et al., 1994; Koestner et al., 1984; Ryan, 1982).

AS is highly compatible with the provision of structure (Grolnick, 2012; Grolnick & Ryan, 1989; Grolnick, Raftery-Helmer, Flamm, Marbell, & Cardemil, 2014; Jang, Reeve, & Deci, 2010). Providing structure (i.e., clear rules and expectations) helps children understand how their actions are connected to the reactions of key people within their social environment. Doing so in an autonomy-supportive way fosters a feeling of volition, allowing children to experience that their actions stem from themselves instead of being externally controlled (Griffith & Grolnick, 2014). Research on toddlers' compliance and internalization (Kochanska & Aksan, 1995) has shown that gentle guidance (i.e., steering a child's behaviour in a positive rather than a power-assertive way; Blandon & Volling, 2008; Kochanska & Aksan, 1995), a concept similar to AS, was linked with higher committed compliance, a preliminary form of internalization and self-regulation.

AS has been shown to greatly assist children and adolescents in the process of internalizing the values, norms, and behaviours that are put forward by their parents, and to foster engagement and self-determination (Grolnick et al., 1997; Joussemet, Koestner, Lekes, & Houlfort, 2004; Lekes et al., 2011; Mageau et al., 2009). Grolnick and Ryan (1989) interviewed parents and asked them to what extent they acknowledged their child's feelings, offered reasons for their requests, and took their child's perspective into account when making decisions. They found that parents who used these autonomy-supportive strategies to a greater degree had children who experienced higher motivation, showed heightened competence, and greater achievements in school. Chirkov and Ryan (2001) also showed that parental expression of AS was positively related to children's well-being and school performance. Similarly, Joussemet, Koestner, Lekes, and Landry (2005) found that maternal AS when children were five years of age was related to their social and academic adjustment in third

grade. Autonomy-supportive parenting has also been associated with better emotional regulation by children (Eiden, Edwards, & Leonard, 2007; Ryan et al., 2006).

A few studies on autonomy-supportive parenting of toddlers have been conducted and some of them have explored its impact on child motivation. For example, Grolnick, Frodi, and Bridges (1984) found that mothers' autonomy-supportive behaviours during a game-like task were positively associated with their 12-month-old infant's subsequent exploratory behaviours. This AS benefit remained eight months later, when child task-oriented persistence and competence was assessed (Frodi, Bridges & Grolnick, 1985). In a set of recent studies, maternal AS was coded while 15-month-old infants and their mothers engaged in a puzzle task, and was found to predict secure attachment in toddlers (Whipple, Bernier, & Mageau, 2011; Bernier, Matte-Gagné, Bélanger, & Whipple, 2014), as well as self-regulatory abilities at 18 and 24 months of age (Bernier, Carlson, & Whipple, 2010).

To summarize, it appears that autonomy-supportive parenting promotes positive child outcomes, even as early as toddlerhood. However, the very few studies examining AS toward toddlers did so in game-like contexts, as opposed to frustrating or "hot" socialization contexts (Kim, Nordling, Yoon, Boldt, & Kochanska, 2013). Research has shown that children's ability to self-regulate their emotionally-charged response in hot situations is predictive of their later behavioural and psychological difficulties (Cole & Deater-Deckard, 2009; Eisenberg et al., 2004; Keenan, 2000; Kim et al., 2013).

Given the developmental differences between toddlers and older children, it is important to further explore how AS can be conveyed to toddlers, as AS may be manifested differently depending on developmental periods and contexts. Therefore, the goal of the

present study is to explore what autonomy-supportive parents report doing when making requests to their toddler.

To our knowledge, the only research investigating concrete manifestations of an autonomy-supportive approach has been conducted in the context of education. In 1999, Reeve, Bolt, and Cai showed that teachers who had an autonomy-supportive orientation acted differently from more controlling teachers. They assessed school teachers' self-reported motivational approach (Deci, Schwartz, Sheinman, & Ryan, 1981), ranging from highly autonomy-supportive to highly controlling and subsequently observed their classroom behaviours. Compared to more controlling teachers, teachers who valued AS to a greater extent did more of the following: listening to their students, allowing students to work their own way, encouraging problem solving, making learning material available to students, inviting students to share their interests, and acknowledging their perspective. The validity of these practices was further corroborated, as teachers who adopted these practices were rated as being more autonomy-supportive by students (Reeve & Jang, 2006). Recently, Joussemet, Sorel, and Brouillard (2014) explored autonomy-supportive behaviours that daycare educators report using with toddlers. Educators who valued AS to a greater extent reported modeling the desired behaviour and providing rationales with their requests more frequently than more controlling educators.

The Present Study

Building on this prior work, the present exploratory study will examine how parents' AS is manifested in parent-toddler socialization situations (i.e., making requests). The main goal was to explore a wide range of socialization practices that could be favored by parents who prioritize supporting their toddler's autonomy. By using exploratory factorial and

correlational analyses, we aimed to explore which practices would (1) load on a putative AS factor and (2) relate positively with the well-known Parent Attitude Scale (PAS; Gurland & Grolnick, 2005). We also explored how the selected subset of practices relates with toddlers' rule internalization (Kochanska & Aksan, 1995).

Although this study is exploratory, we hypothesized that the AS factor would include practices related to empathy, as parents of young children can show sensitivity and responsiveness, akin to AS (Griffith & Grolnick, 2014; Hoffman, 2000). However, we had no specific prediction about the use of rationales, choices, and "non-controlling" language, as they may not all be developmentally appropriate for toddlers. Finally, we expected that some practices falling outside of the classical AS definition could be identified as autonomy-supportive, but no specific hypotheses were made in regards to the nature of these practices.

Method

Recruitment

Participants were French-speaking parents of toddlers, principally recruited from daycare centers within the province of Québec (mainly in the Montreal area), Canada. Some participants were recruited via parent blogging websites and associations.

After obtaining ethical approval, interested daycare principals assisted in recruitment by sending out a letter to parents, posting a recruitment flyer and/or allowing researchers to recruit parents on site. The recruitment material summarized the study's goal, inclusion criteria, and procedure (e.g., to fill out an online questionnaire). The main researcher always communicated with parents to confirm their eligibility prior to giving them an identification number and the link to the online questionnaire. The inclusion criteria were: raising a toddler aged between 18 and 36 months and being able to communicate in French. When participants

had more than one child meeting the inclusion criteria, they were asked to identify one of them, to ensure that parents would keep the targeted child in mind while answering the questionnaire.

Participants

Initially, 196 parents of toddlers enrolled to participate for in this study. However, 14 participants had to be completely eliminated from the sample as they left the majority of the questions unanswered. As such, the sample was comprised of 182 participants (145 mothers; 37 fathers). Only one parent per family was asked to fill out the questionnaire. In terms of ethnicity, 73.6% of parents identified themselves as Canadians while 26.4% categorized themselves as "Other" (e.g., African-American, Italian, Mexican, etc.). Most (98.2%) were married or in a common law relationship. The average age of the parents was 33.78 years old (*SD* = 4.82). The youngest parent was 21 years old while the oldest parent was 45 years old, and most (70.2%) had a university degree. The majority of the sample spoke French at home (92.0%). The average age of targeted toddlers (91 boys; 91 girls) was 27.08 months (*SD* = 5.46).

Procedure

Once parents had read and answered the online consent form, they proceeded to fill out the questionnaire. It took around one hour to complete and all participants were mailed a twenty dollar compensation check upon completion. The questionnaire began with the list of parenting practices, designed for the purpose of the present study, followed by the Parent Attitude Scale (Gurland & Grolnick, 2005), the My Child Questionnaire (Kochanska, DeVet, Goldman, Murray, & Putnam, 1994), and ended with socio-demographic questions. This order of presentation was selected to prevent participants from thinking about their beliefs

concerning motivational approaches before examining how often they use each parenting practice (i.e., to minimize social desirability). The listed items were presented in random order within the parenting practices section, varying from one participant to another. Parents were able to access the questionnaire at all times and could complete it during separate time periods, at their convenience.

Measures

Socialization practices used. A pool of 26 potentially autonomy-supportive practices was generated, based on the classic operational definition of AS (Koestner et al., 1984), as well as on the literature on parental AS (e.g., Griffith & Grolnick, 2014; Grolnick et al., 2014; Grolnick & Ryan, 1989), parental discipline (e.g., Critchley & Sanson, 2006; Davidov, Grusec, & Wolfe, 2012; Grusec & Goodnow, 1994), maternal sensitivity and cooperation (including mood-setting techniques; Ainsworth, 1969; Bretherton, 2013), moral development (Hoffman, 2000), some parenting programs (Caughy, Miller, Genevro, Huang, & Nautiyal, 2003; Faber & Mazlish, 2012), and other studies on disciplinary tactics (Papaioannou, 1998; Robinson, Mandleco, Olsen, & Hart, 1995).

The list of 26 parenting practices was presented to parents, who were asked to rate how often they use each practice on a 6-point Likert scale ranging from *Never* (0) to *All the time* (5). The "request" context was made explicit. First, examples of "important things toddlers need to do and that are not always enjoyable" were provided (e.g., pick up toys, put on a hat, take a bath). Participants were also asked to add examples of the everyday requests (things he/she has to do but doesn't like doing) they make to their toddler. The stem preceding the listed practices was "*When you ask your toddler to do something he/she doesn't like doing (e.g., getting dressed, taking a bath, picking up the toys), how often do you…*" or "*Once you*

realize that your toddler is not listening to your request, how often do you…". The list of practices can be found in Table 1. Examples include: Make your request by beginning with "Can you"; Acknowledge your toddler's feelings (e.g., anger, fear, etc.) with a sound such as "Hmm…" and/or by naming the feeling; Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a short explanation (e.g., "You have to put your boots on because it's cold.").

The French version of this list was used for the purposes of this study, generated by using a back-translation procedure (Vallerand, 1989). All practices from the English list were translated from English to French by a research assistant who was fluent in both languages and then re-translated from French to English by a second research assistant who was also perfectly bilingual. The original and the back-translated versions were then compared and edited by the first and second authors, to produce final English and French versions of the list.

Parental attitude toward AS. The Parent Attitude Scale (PAS; Gurland & Grolnick, 2005) is composed of a series of 10 items (α = .72) and serves to assess parents' beliefs about AS (e.g., "I find that listening to what my child has to say helps me reach a better decision") and psychological control (e.g., "The most important thing to teach children is absolute obedience to parents") when parenting children (Gurland & Grolnick, 2005). Parents answered each item on a 7-point Likert scale, ranging from *Not at all in agreement* (1) to *Very strongly agree* (7). Higher scores indicate a more positive attitude towards AS. Gurland and Grolnick (2005) demonstrated that the PAS has good predictive validity. It has been positively associated with a behavioural measure of autonomy-supportive behaviours. The French version of this scale was shown to have good internal consistency (α = .64 and .81; Joussemet, Mageau, & Koestner, 2014).

Child rule internalization. Parents were also asked to complete the "Internalized Conduct" subscale of the My Child Questionnaire, a measure of children's conscience development (Kochanska, DeVet, Goldman, Murray, & Putnam, 1994). This 20-item subscale is rated on a 7-point Likert scale ranging from *Extremely untrue* (1) to *Extremely true* (7). It represents committed compliance, an early form of rule internalization, which Kochanska and colleagues (1994) describe as the spontaneous self-correction/self-regulation done by the child without surveillance (e.g., will spontaneously pick up toys, even without being asked; internal consistency: $\alpha = .90$).

Results

Descriptive statistics of all continuous variables used in the principal analyses are presented in Table 1. The Kaiser-Meyer-Olkin (KMO) measure was used to verify the sampling adequacy for the analysis. According to Hutcheson and Sofroniou (1999), the KMO value was considered good (KMO = .72), suggesting that the sample size was adequate for factor analysis. Furthermore, all KMO values for the individual items were above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity, $\chi^2(325) = 999.36$, $p < .001$, indicated that correlations between items were sufficiently large for factor analysis. First, an exploratory factor analysis using Maximum Likelihood (ML) with an oblimin rotation was performed to evaluate the factorial structure of the 26 parenting practices and the resulting scree plot suggested a one-factor solution. A second exploratory factor analysis using ML was thus conducted, forcing the 26 parenting practices into a one factor model. This analysis was conducted using listwise deletion and as a result, the data of 22 parents were not used in this factor analysis (for a total of 160 parents). The one-factor model explained 18.64% of the variance. Table 2 shows the loadings of each of the practices on this factor.

Pearson product-moment correlations of each of the 26 practices and the PAS (Gurland & Grolnick, 2005) were then conducted to investigate which practices correlate positively with this gold-standard of autonomy-supportive parenting. Ten parenting practices were significantly positively correlated with the PAS (see Table 1).

Keeping only the practices that (1) obtained a factor loading above .40[1] in factor analysis and (2) showed a significant positive correlation with the PAS, a third exploratory factor analysis using ML was conducted to ascertain that these (eight) practices for making requests do form a single factor representing AS. Using ML estimation, the scree plot test's inflexion point justified the retention of one factor, which explained 36.29% of the variance. This analysis was also conducted using listwise deletion, with a resulting number of 173 parents. Forcing the parenting practices into one factor, all practices had loadings above .40 and were retained in the final solution (see Table 2). These practices pertain to: offering short explanations, conveying why the requested task is important, describing the problem that needs to be solved, flexibly taking the toddler's desire into account when making one's request, modeling/behaving in congruence with requests made, and hearing, acknowledging and accepting the toddler's feelings, even his irritation and protest. Their average correlated strongly with parents' mean score on the PAS, indicative of their attitude toward AS ($r = .36$, $n = 176$, $p < .001$).

Finally, we explored the relationship between the frequency with which parents used these eight identified practices and the level of rule internalization demonstrated by their toddler (Kochanska et al., 1994). The mean score of these practices was calculated prior to conducting the correlation. There was a moderate, positive correlation between the two variables, $r = .27$, $n = 176$, $p < .010$, with high levels of toddlers' rule internalization being

positively associated with the frequency of use of these autonomy-supportive socialization practices.

Discussion

The goal of the present study was to search for autonomy-supportive practices that parents use when they make requests to their toddlers. Specifically, using correlational and factorial analyses, we aimed to uncover some practices that positively related to parents' autonomy-supportive attitude and that loaded on a putative AS factor. We also explored how the group of retained autonomy-supportive practices correlated with toddlers' level of rule internalization, further assessing its validity. Though preliminary, this study is informative because it identifies manifestations of AS in a request-making context. In addition, the finding that AS towards toddlers is positively associated with toddlers' internalization of rules is in line with SDT's notion that optimal development is related to the support of psychological autonomy (Chirkov, Ryan, & Willness, 2005; Deci et al., 1994; Deci & Ryan, 2000; 2008; Grusec & Goodnow, 1994; Joussemet et al., 2008; Vansteenkiste & Ryan, 2013). This finding also suggests that AS is beneficial even with very young children, which corroborates the concept of AS being a universal psychological need (Chirkov & Ryan, 2001; Jang et al., 2009; Lynch et al., 2009; Ryan & Deci, 2000).

Retained Practices

A total of eight practices were retained. These practices were kept because they loaded on the final AS factor and correlated with the PAS (Gurland & Grolnick, 2005), a well-known scale which measures parents' attitude toward AS. In line with the hypotheses made, four of these practices correspond to the concept of empathy (Hoffman, 2000): "Hear your toddler out if he/she protests (i.e., listen to what he/she has to say)", "Show your toddler that you

understand that he/she is annoyed by your request", "Take your toddler's desires into account when making your request", and "Acknowledge your toddler's feelings with a sound and/or by naming the feeling". It appears that the listening and acknowledging practices are tapping into a common concept similar to empathy, which has been related to positive child outcomes (Griffith & Grolnick, 2014). Empathy is also one of the main components of the classical definition of AS (Deci et al., 1994; Koestner et al., 1984).

In addition to conveying empathy by different means, parents who tend to strongly value AS also have a tendency to endorse the following practices: "Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a short explanation", "If your toddler asks why he/she has to do it, explain why it's important", "Describe the problem (e.g., "It is difficult to walk around with all these toys on the floor.")", and "Show your toddler what you want him/her to do by doing it yourself as well (e.g., put your own hat on; wash your hands with him/her)".

Giving toddlers the reason behind parental requests and explaining their value or importance appears to be pertinent to autonomy-supportive parents. These practices are in line with one of the components of the classical definition of AS, that is providing rationales (Deci et al., 1994). The results also suggest that giving *short* explanations as opposed to long ones were favoured by autonomy-supportive parents. Indeed providing a *long* explanation (item 20 in Table 1) was unrelated to the PAS and did not load on the AS factor (loading of .22). Long rationales are probably developmentally inappropriate for this age group, and may be perceived as lectures or sermons (Faber & Mazlish, 2012). Sansone, Weir, Harpster, and Morgan (1992) also mention that meaningful rationales are important. In addition to an

appropriate length (and probably language level), the degree to which the rationale starts from the toddler's perspective (vs. parental concerns and standards) should be investigated.

"Describing the problem" (e.g., it is difficult to walk around with all these toys on the floor.) was an autonomy-supportive practice inspired by SDT and applied work (Faber & Mazlish, 2012). Koestner and his colleagues (1984) explained that instructions delivered in an informational rather than controlling style (i.e., in the form of controlling language) fosters children's internal (vs. external) locus of causality. Describing a problem without implying anything about the child is a form of non-controlling language, one of the main components of the classical definition of AS (Koestner et al., 1984) and it may also represent a good way to convey unconditional positive regard (Assor, Roth, & Deci, 2004). Similarly, in their parenting book, Faber and Mazlish (2012) explain that informational and neutral descriptions help children better understand what needs to be done to remedy the problem. Hearing about a problem needing to be fixed as opposed to being accused of creating one is a lot easier to hear and may protect toddlers from painful feelings and backlash to their self-esteem. The child has an easier time concentrating on the problem and it also gives them a chance to figure out what they can do to solve the problem themselves (Faber & Mazlish, 2012).

A modeling practice was also retained in the group of autonomy-supportive practices: "Show your toddler what you want him/her to do by doing it yourself as well" (e.g., put your own hat on; wash your hands with him/her). Social learning theory (Bandura, 1977) has long emphasized that modeling is a powerful source of development. Perhaps modeling is also a way to minimize power assertion, as parents who tend to value AS also tend to "practice what they preach" to emphasize the task's importance rather than their authority ("do as I say, not

as I do"). Perhaps by watching their parents enact a desired behaviour, children see it as more reasonable and less compelling since parents also impose it on themselves.

Promising Practices

Two practices, "Warn toddler in advance about what's to be asked of him/her" and "Make the task fun", were not retained in the final solution despite the fact they were positively correlated with the PAS. Although they are interesting ways, for parents, to support their toddler's autonomy, their factor loadings fell below .40. Though warning a child in advance and attempting to make the activity more pleasant may well correspond to the essence of AS, these practices require a lot of energy and time from parents. When making requests, parents may thus tend to convey empathy, give short rationales, model the request, and use an informational and neutral style more often than they tend to use these more effortful practices.

There were five practices that obtained a factor loading above .40 but were not retained in the final group of autonomy-supportive practices as they did not show a positive correlation with the PAS. They were: "Try to understand why he/she is not listening", "Have your toddler do the same thing to their doll/teddy", "Make your request by finishing with *please*", "State the rule", and "Make your request by beginning with *I would like*". The latter three practices seem to model social etiquettes that parents may wish to instil in their children. The factor analysis suggests that parents who tend to use autonomy-supportive practices also tend to ask themselves why their toddler doesn't comply, have their toddler use pretend play and use "polite" language. However, the lack of correlation with the PAS suggests that such practices may also be used by more controlling parents, in addition to parents who value AS to a greater extent.

Three practices that did not correlate with the PAS obtained relatively high loadings (between .35 and .37). Parents who tend to use autonomy-supportive practices when making requests to their toddlers also tend to report describing what they feel, saying "It's time to" and using fantasy to convey their empathy. However, since there was no correlation with the PAS, these practices might not well represent AS, especially toward toddlers. These practices may be tapping into concepts (e.g., time, parents' feelings, fantasy) that autonomy-supportive parents may find inappropriate developmentally (distracting and/or confusing) for toddlers in a socialization context.

Choice. Though choice is one of the main components of the classical definition of AS (Grolnick, Gurland, DeCourcey, & Jacob, 2002), "Allow your toddler to decide how to perform the task") was not retained in the solution. Letting the toddler decide *how to* perform a task may have seemed developmentally inappropriate for parents of toddlers. When being asked to do something, children of this age may need to be told precisely what needs to be done (i.e., provided with more structure) in order for the request to be, first and foremost, understood and then eventually internalized. The fact that the provision of choice was embodied in a single item is a methodological limitation. It would have been valuable to include less open and easier choices (e.g., "Do you want to pick up the cars or the trucks first?", "Do you want me to help you with this task?"). Alternatively, perhaps the requests in the questionnaire referred to specific and simple tasks for which giving choices may not have seemed pertinent. Future studies should explore the value of various ways to convey choice and initiatives within requested tasks.

Non Autonomy-supportive Practices

In our exploratory analyses, we aimed to test a vast array of practices that may be used by parents who value AS. Results of the factorial and correlational analyses conducted suggest that the remaining practices in the list (all factor loadings below .30 and non-significant correlations with the PAS) do not represent AS in a request making context. For instance, practices such as "Make belief" and "Distract your toddler while you do it yourself" probably better represent manipulation. "Sing a song" and "Put on music" were not retained either. It seems that "using" music in a request context was a poor example of mood-setting technique (Ainsworth, 1969; Bretherton, 2013). Finally, making requests by beginning with "Can you…'' and "Making excuses for toddlers" suggest that AS is unrelated to such permissive or unassertive formulations.

Autonomy-supportive parenting can best be described as the recognition and consideration of children's unique needs, feelings and perspectives (Ryan et al., 2006). In the classical definition of AS (Koestner et al., 1984; Deci et al., 1994), the provision of empathy, rationales, choice and the use of non-controlling language when making requests are key ingredients. According to the results of the present study, conveying empathy, giving personally meaningful (and age-appropriate) rationales as well as using a descriptive language seem pertinent when socializing toddlers. Future studies are needed to further explore the aspect of choice as it may need to be presented in a more structured way, that is, by providing the child with a limited number of options (e.g., "It is time to get dressed, do you want your blue sweater or the red one?").

Limits and Future Directions

Although this study contributes to the literature on AS in the parenting context, there are several limitations that need mentioning. One limitation is that the parenting practices identified only explained 36.29% of the variance in our putative AS factor, leaving a large portion of variance unexplained. Perhaps parents who do value AS tend to use only a limited number of autonomy-supportive practices, which would limit their intercorrelations. Furthermore, all parents probably do not use the same practices. Though parents may endorse PAS items that researchers identify as autonomy-supportive, they may not have a clear idea of what AS consists of and so, probably do not use all possible autonomy-supportive practices. Similarly, relying on the frequency of use may not be the best way to establish whether the practices are autonomy-supportive. Some practices may be very autonomy-supportive but be used relatively infrequently. Parents may also use other practices that this study was unable to tap into.

The study's main limitation is the reliance on self-report measures for both parenting and child variables which carry subjective bias. This also leads to a common method variance problem (i.e., variance that is attributable to the method of measurement rather than to the constructs the measures represent; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and as such, the results should be interpreted cautiously. In addition, there was relatively little context provided in the formulation of practices. Indeed, using a questionnaire format precluded the inclusion of important nuances.

Qualitative, observational and experimental methods would help explore how parents go about supporting their toddler's autonomy. For example, qualitative research would be helpful in understanding what specific types of rationales and choices autonomy-supportive

parents tend to favour. In a recent study, daycare educators were interviewed and provided rich discourse about, among other aspects of AS, how they explain rationales and provide some choices (Côté-Lecaldare, Joussemet, & Dufour, 2015). In addition, experimental work teaching parents how they may convey AS in request situations could test whether participants would broaden their "repertoire" and what effect these new behaviours would have on children.

Observational studies would also be needed to assess important nuances, such as the words chosen, non-verbal aspects of communication, and examine each practice under study in context. One promising avenue would be to assess parental attitudes toward AS and, following Reeve and colleagues (Reeve et al., 1999; Reeve & Jang, 2006), observe parent-toddlers dyads and code the way more autonomy-supportive parents tend to elicit compliance from their toddler, during a clean-up task for instance. Results from the present study could be useful in developing a coding scheme, but observing autonomy-supportive parents' socialization practices could help identify other potentially autonomy-supportive practices.

An important research area would be to observe how toddlers' rule internalization and well-being relate to potentially autonomy-supportive practices, both in the short and long-term. For instance, Laurin and Joussemet (submitted) observed parents and their two-year-olds completing a clean-up task. AS (coded using classical elements such as rationales and others, such as describing the problem) was linked with more improvements in committed compliance, observed 1.5 years later. Future studies could also examine parenting practices in a "don't" context, such as in a delay of gratification task. It would also be important to include third-party reports in future studies, such as daycare educators, who have a different perception of toddlers and thus give new insight on their adjustment. Furthermore,

longitudinal studies could track the long-term impact of autonomy-supportive practices on children's mental health and development.

Finally, the data was collected among highly educated French Canadians. It is therefore impossible to assume that similar results would be obtained in a less educated or more diverse sample (e.g., higher risk families). Other recruitment sources besides daycares could be used to favour a more heterogeneous sample in future research. Other more difficult socialization contexts such as families dealing with chronic illness (e.g., dealing with difficult/painful procedures, restrictions) could be studied. Exploring how parents support children's autonomy in such situations could enrich the literature on AS and parenting. Importantly, it could provide stepping stones to parents in similar situations and help them on a daily basis.

Despite these limitations, the present results suggest useful ways to support younger children's autonomy and as such, help shed light on the specific manifestations of autonomy-supportive parenting that are developmentally appropriate for toddlers. Importantly, this study presents preliminary, parent-reported information about autonomy-supportive parenting practices in socialization contexts which may serve well as a stepping stone for future work on the measurement of AS towards toddlers. The findings also provide evidence for the universality of AS (Chirkov & Ryan, 2001; Jang et al., 2009; Lynch et al., 2009; Ryan & Deci, 2000) as well as for its importance during toddlerhood. Finally, the present study contributes to the existing literature by providing concrete examples of autonomy-supportive practices parents can use in a determinant yet potentially challenging context.

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Footnote

[1]Typically researchers take a loading of an absolute value of more than 0.30 to be important. However, that depends on sample size. According to Stevens (2002), for a sample size of 200, a loading of more than 0.364 can be considered significant. In order to be conservative, we thus chose a factor loading of 0.40.

Table 1

Descriptive Statistics, Factor Loadings, and Correlations Between Each Practice and the Parent Attitude Scale

Variable	*n*	*M*	*SD*	Factor Loading	Correlation (*r*)
Parental Attitude towards Autonomy Support (from a scale of 1 to 7)	176	5.41	.75	-	-
Toddler Level of Rule Internalization (from a scale of 1 to 7)	178	3.76	.87	-	-
Parenting Practices (from a scale of 0 to 5)				-	-
1. Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a short explanation (e.g., "You have to put your boots on because it's cold.").[a]	180	4.56	.99	.58	**.18***
2. Show your toddler that you understand that he/she is annoyed by your request.[b]	181	3.33	1.28	.56	**.36***
3. Take your toddler's desires into account when making your request (e.g., "I can see you still want to play but it's time for a bath. Why don't you take your toy with you".).[a]	181	3.62	1.34	.54	**.22***
4. If your toddler asks why he/she has to do it, explain why it's important.[a]	179	4.21	1.44	.53	**.18***
5. Describe the problem (e.g., "It is difficult to walk around with all these toys on the floor.").[a]	181	3.33	1.31	.51	**.19***
6. Show your toddler what you want him/her to do by doing it yourself as well (e.g., put your own hat on; wash your hands with him/her).[a]	182	4.19	1.12	.49	**.20***
7. Try to understand why he/she is not listening (e.g., he/she must be tired, hungry, etc.).[b]	182	3.82	1.19	.47	.14
8. Have your toddler do the same thing to their doll/teddy (e.g., wash his/her doll in the bath at the same time as him/her).[a]	180	2.58	1.41	.46	.07

Descriptive Statistics, Factor Loadings, and Correlations Between Each Practice and the Parent Attitude Scale

Variable	*n*	*M*	*SD*	Factor Loading	Correlation (*r*)
9. Hear your toddler out if he/she protests (i.e., listen to what he/she has to say).[b]	179	3.97	1.30	.46	**.26***
10. Make your request by finishing with please.[a]	180	4.51	1.22	.44	.11
11. State the rule (e.g., "Toys belong in the toy chest.").[a]	179	4.02	1.20	.44	.12
12. Acknowledge your toddler's feelings (e.g., anger, fear, etc.) with a sound such as "Hmm…" and/or by naming the feeling.[b]	181	3.47	1.43	.43	**.18***
13. Make your request by beginning with "I would like… ".[a]	180	3.86	1.23	.40	.12
14. Describe what you feel (e.g., "It upsets me when I can't walk around because toys are all over the floor.").[a]	179	2.94	1.29	.37	.14
15. Use fantasy to show toddler that you understand his/her frustration (e.g., "I wish we had a magic wand so the room can be all cleaned up.").[b]	182	2.00	1.20	.37	.06
16. Warn toddler in advance about what's to be asked of him/her (e.g., "In five minutes, it's going to be time to pick up your toys".).[a]	180	4.23	1.38	.36	**.24***
17. Make your request by saying "It's time to …" (e.g., pick up the toys).[a]	181	4.07	1.10	.35	.05
18. Make the task fun (e.g., pretend to be a truck transporting blocks and dumping them).[a]	181	3.49	1.24	.34	**.18***
19. Allow your toddler to decide how to perform the task.[a]	180	3.28	1.13	.26	.13
20. Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a long explanation (e.g., "You have to put your boots on because it's cold out, you can't walk outside without shoes. You would catch a cold if you didn't.").[a]	179	3.07	1.42	.22	-.09

Descriptive Statistics, Factor Loadings, and Correlations Between Each Practice and the Parent Attitude Scale

Variable	*n*	*M*	*SD*	Factor Loading	Correlation (*r*)
21. Use make belief. (e.g., pretend your toddler's hat is magical to make him/her put it on.).[a]	182	2.58	1.28	.22	.15
22. Sing a song (e.g., sing the "Clean-up" song).[a]	181	3.03	1.49	.21	.13
23. Put on some music.[a]	181	2.43	1.50	.20	.03
24. Distract your toddler while you do it yourself (e.g., put your toddler's hat on while you show him/her something interesting.).[b]	182	3.10	1.30	.19	-.04
25. Make excuses (say that it's not his/her fault; e.g., toddler is not listening because he/she is tired.).[b]	181	2.06	1.00	.15	.00
26. Make your request by beginning with "Can you…''.[a]	180	3.29	1.34	.11	-.04

Note. * Correlations are significant at the $p < .05$ level.
[a]Practices presented after the stem "When you ask your toddler to do something he/she doesn't like doing (e.g., getting dressed, taking a bath, picking up the toys), how often do you…". [b]Practices presented after the stem "Once you realize that your toddler is not listening to your request, how often do you…"

Table 2

Factor Loadings for Exploratory Factor Analysis of Eight Autonomy-supportive Parenting Practices

Autonomy-Supportive Parenting Practices	Factor Loading
1. Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a short explanation (e.g., "You have to put your boots on because it's cold.").[a]	.65
2. If your toddler asks why he/she has to do it, explain why it's important.[a]	.65
3. Hear your toddler out if he/she protests (i.e., listen to what he/she has to say).[b]	.53
4. Describe the problem (e.g., "It is difficult to walk around with all these toys on the floor.").[a]	.51
5. Take your toddler's desires into account when making your request (e.g., "I can see you still want to play but it's time for a bath. Why don't you take your toy with you".).[a]	.50
6. Show your toddler that you understand that he/she is annoyed by your request.[b]	.47
7. Acknowledge your toddler's feelings (e.g., anger, fear, etc.) with a sound such as "Hmm…" and/or by naming the feeling.[b]	.43
8. Show your toddler what you want him/her to do by doing it yourself as well (e.g., put your own hat on; wash your hands with him/her).[a]	.41

[a]Practices presented after the stem "When you ask your toddler to do something he/she doesn't like doing (e.g., getting dressed, taking a bath, picking up the toys), how often do you…".
[b]Practices presented after the stem "Once you realize that your toddler is not listening to your request, how often do you…"

Chapter III

Toddlers' Temperament and the Reported Use of Autonomy-supportive Socialization Practices: The Mediating Role of Parental Stress

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Mireille Joussemet: Article conceptualization, co-creator of Parenting Practices Questionnaire, results interpretation assistance, article editing.

Julie Laurin: Statistical analyses and interpretation assistance, proofreading article.

Geneviève Mageau: Statistical analyses assistance, proofreading article.

Toddlers' Temperament and the Reported Use of Autonomy-supportive Socialization Practices: The Mediating Role of Parental Stress

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Abstract

The goal of the present study was to examine how toddlers' temperament and parents' stress relate to the parental use of autonomy support (AS) when making requests. It was hypothesized that parental stress would play a mediating role in the relationship between toddlers' temperament (i.e., negative affectivity, effortful control, surgency) and AS. Parents (N = 182) reported how often they used a series of eight autonomy-supportive parenting practices when asking their toddlers (M age = 27.08 months) to engage in important, yet uninteresting activities. They also answered questions regarding their toddler's temperament and their own stress levels. Mediation models showed that greater child negative affectivity was associated with greater parental stress, which in turn predicted lower parental AS. In contrast, the positive relationship between child effortful control and parental AS was partially mediated by lower parental stress. These findings underline the need for more research on how to mitigate the impact of "difficult" temperamental characteristics so as to preserve parents' support for their children's basic need for autonomy.

Keywords: toddlers, autonomy support, negative affectivity, effortful control, surgency, parental stress.

Toddlers' Temperament and the Reported Use of Autonomy-supportive Socialization Practices: The Mediating Role of Parental Stress

When parents recognize that their children have needs and feelings which are different from their own and, respect and support their children's unique ideas, interests and feelings, their parenting would be described as autonomy-supportive (Ryan, Deci, Grolnick, & La Guardia, 2006). Autonomy (or self-determination), a fundamental and universal need, is defined as the experience of authentically endorsing and concurring with one's behaviours (Chirkov & Ryan, 2001; Deci & Ryan, 2000; Jang, Reeve, Ryan, & Kim, 2009; Lynch, La Guardia, & Ryan, 2009; Marbell & Grolnick, 2013; Ryan et al., 2006). According to self-determination theory (SDT; Deci & Ryan, 2000; 2008), all individuals benefit from having this need met regardless of their age.

Early on during childhood, parents engage in the process of socializing their children wherein they focus on teaching them the values, norms, and socially-appropriate behaviours and skills that will enable them to function within their society (Grolnick, Deci, & Ryan, 1997; Maccoby, 1984; Zigler & Child, 1973). This can prove to be quite difficult during toddlerhood (i.e., between 16 to 36 months of age; Lally et al., 2003), as there are many demands placed upon children during this period that are not enjoyable (e.g., cleaning up, going to bed). The task of socializing a child can thus prove to be demanding for parents who wish to foster their toddler's compliance while also trying to be autonomy-supportive (Deci, Ryan, & Guay, 2013; Grolnick, 2003; Shaw, Bell, & Gilliom, 2000; Zigler & Child, 1973). The present study aims to explore the factors that may prevent parents from using autonomy-supportive practices with their toddlers in socialization contexts (i.e., when asking them to engage in an important yet uninteresting task).

Autonomy Support: Definition and Impact on Toddlers' Well-being

Two important elements of autonomy support (AS) are providing rationales and conveying empathy (Deci, Eghrari, Patrick, & Leone, 1994; Grolnick et al., 1997; Koestner, Ryan, Bernieri, & Holt, 1984). Firstly, *giving reasons* for requests help children better understand the value in completing them (Deci et al., 1994). Secondly, *acknowledging children's perspective and feelings* helps them feel that their subjective experience is understood and respected (Deci et al., 1994; Grolnick et al., 1997). The validity of these two practices for toddlers was recently supported in a study conducted amongst parents of toddlers (Andreadakis, Joussemet, & Mageau, unpublished manuscript). In addition to offering empathy and rationales, parents who valued autonomy-granting to a greater extent also reported describing problematic situations in an informational and neutral way (i.e., without attacking the child's character) and modeling the requested behaviours (Andreadakis, Joussemet, & Mageau, unpublished manuscript).

According to SDT, optimal human development, internalization of rules, and well-being depend on the satisfaction of the fundamental need for psychological autonomy. Numerous studies have shown the benefits of AS for children, such as healthier emotional regulation, greater well-being, and psychosocial adjustment (Deci et al., 2013; Hart, Newell, & Olsen, 2003; Ryan & Deci, 2000; Ryan et al., 2006). Regarding the benefits for toddlers, AS has been positively associated with executive functioning, exploratory behaviours, and security of attachment (Bernier, Carlson, & Whipple, 2010; Grolnick, Frodi, & Bridges, 1984; Whipple, Bernier, & Mageau, 2011). In contrast, environments that hinder the need for psychological autonomy have a significant negative impact on children's overall adjustment and level of internalization (Deci & Ryan, 1987; Grolnick, 2003; Joussemet, Koestner, Lekes,

& Landry, 2005; Ryan et al., 2006). Research has shown that when children's need for autonomy is thwarted, they are at a higher-risk of developing poorer self-regulation skills (Gershoff, 2002), and social, and communication competencies (Stafford & Bayer, 1993), externalized and internalized disorders (e.g., Barber & Harmon, 2002; Morris et al., 2002), as well as experiencing peer rejection (Deković & Janssens, 1992). It thus seems important to identify what might prevent parents from supporting their child's autonomy, especially during toddlerhood, a period during which autonomy and individuality are central (Houck & LeCuyer-Maus, 2002).

Stressors and their Effect on Autonomy-supportive Parenting

It is now well-recognized that parenting does not take place in a vacuum and is affected by stressors. Parenting requires time, energy, and personal resources that can be easily depleted. If this occurs, it can undermine parenting behaviour (Grolnick, Weiss, McKenzie, & Wrightman, 1996). High-stress conditions have been found to make parents less responsive and helpful, as well as more critical, restrictive, and punitive towards children (e.g., Leinonen, Solantaus, & Punamäki, 2003; Zussman, 1980). Stressors have also been shown to be negatively associated with parental sensitivity (e.g., Crnic, Friedrich, & Greenberg, 1983). In regards to autonomy-supportive versus thwarting parenting, Grolnick and her colleagues (1996) found that more negative/stressful life events (e.g., death, illness) reported by mothers were associated with less autonomy-supportive parenting towards their adolescents. In addition, parents of toddlers were found to adopt more controlling parenting practices with their children after a more stressful day at work (Repetti, 1994; Repetti & Wood, 1997). It thus appears that the stressors under which parenting takes place make it difficult to put AS into practice.

Grolnick (2003) explains that in addition to such contextual stressors or "pressure from above", other types of pressure may compromise parenting quality. Indeed, parents may experience "pressure from within" themselves (e.g., pressure to "perform", Grolnick, 2003; Grolnick, Gurland, DeCourcey, & Jacob, 2002; Ryan, 1982), or "pressure from below" which refers to pressure emanating from their child. Undeniably, children's temperament can also represent a source of stress for parents. Some personality characteristics can certainly "pull" for more controlling, less autonomy-supportive parenting.

Child Temperament: A Potential Parental Stressor

In early childhood, temperament is commonly used to describe children's different emotional, attentional, and motor tendencies, as well as their self-regulation capabilities (Rothbart & Bates, 1998). These early and stable individual differences in reactivity and self-regulation influence parent-child dyads (Rothbart & Bates, 2006). Research has clearly demonstrated a link between children's "difficult" temperament and poorer parenting quality (for a review, see Paulussen-Hoogeboom, Stams, Hermanns, & Peetsma, 2007; Scaramella & Leve, 2004).

Three dimensions of temperament are central to the study of developmental research. *Surgency* refers to the level of extraversion a child exhibits (Putnam, Ellis, & Rothbart, 2001). It includes traits such as the level impulsivity, activity, and shyness a child displays, their level of high-intensity pleasure, and overall tendency to smile and laugh (Costa, Terracciano, & McCrae, 2001). *Effortful control* characterizes the ability to inhibit a dominant response and/or to activate a subdominant response in order to regulate behaviours and emotions (Eisenberg & Spinrad, 2004; Frick & Morris, 2004; Putnam & Rothbart, 2006; Rothbart, 1989; 2005). Finally, *negative affectivity*, the core dimension of difficult temperament (Bates,

1989; Lee & Bates, 1985, Prior, 1992; Shiner, 1998), is said to be precisely what makes "difficult" children harder to parent (Chess & Thomas, 1984). It is characterized by irritability, negative mood, an inability to be soothed, intense negative reactions (including sadness; Rothbart, Ahadi, & Hershey, 1994), fear of novelty, and anger proneness (Sanson, Hemphill, & Smart, 2004).

The literature on child temperament and parenting has paid relatively more attention to negative affectivity, whereas some studies have examined the link between effortful control and the parent-child relationship. In contrast, the association between toddlers' level of surgency has yet to be examined in this socialization context.

Child Temperament and its Effect on Parenting

Children who exhibit high negative affectivity are at a heightened risk for receiving parenting that is hostile/harsh (Katainen, Räikkönen, Keskivaara, & Keltikangas-Järvinen, 1999; Kochanska, Friesenborg, Lange, & Martel, 2004), strict, critical, authoritarian (Lee, Zhou, Eisenberg, & Wang, 2013; Lerner, 1993; Porter et al., 2005; Zhou, Eisenberg, Wang, & Reiser, 2004), and autonomy-thwarting (van der Bruggen, Stams, Bögels, & Paulussen-Hoogeboom, 2010; Walling, Mills, & Freeman, 2007).

Toddlers who exhibit low levels of effortful control may also tend to evoke more punitive and non-supportive parenting behaviours (Eisenberg et al., 1999; Lytton, 1990). Indeed lower self-regulation may make it more difficult for parents to manage toddlers, since low levels of effortful control have been associated with increased internalizing and externalizing problem behaviours (Eisenberg et al., 2001).

Parents dealing with less regulated children may become frustrated in their efforts to raise them and this reaction may foster the use of negative parenting behaviours. In fact, a

study by Coplan, Bowker, and Cooper (2003) showed that parents of children who have low levels of self-regulation experience greater stress. Similarly, a high level of child negative affectivity contributes to parenting stress by augmenting the demands placed on parents (Maccoby, 2000).

Surgency has been linked to the Big Five trait of extraversion (Costa, Terracciano, & McCrae, 2001). Research has shown that extraversion is predictive of effective functioning and well-being across a wide variety of domains (Ozer & Benet-Martinez, 2006), including cognitive performance (Matthews, 1992), and social endeavors (Eaton & Funder, 2003). It also predicts risk and also resilience for different forms of psychopathology (Trull & Sher, 1994; Widiger, 2005). Children high in extraversion tend to be more expressive, energetic, and enjoy engaging in social interactions. A study by Prinzie and colleagues (2012) showed that such children may evoke more supportive and warm parenting behaviours, in addition to fostering more joyful interactions and less parental stress.

The Effect of Parental Stress on Autonomy-supportive Parenting

Studies have shown that stress can make parents more irritable, impulsive, and psychologically unavailable; characteristics that make a parent less likely to be autonomy-supportive (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Grolnick, 2003; McLoyd, Jayaratne, Ceballo, & Borquez, 1994; McLoyd & Wilson, 1991; Zussman, 1980). Autonomy support (AS) requires time and psychological availability that parents lack when they are stressed (Grolnick, 2003). In high-stress situations, parents tend to focus on the immediate task (Grolnick, 2003) and since AS involves offering rationales and empathy (Deci et al., 1994; Grolnick et al., 1997), it may seem "incompatible" with such stressful situations and/or seem particularly difficult to sustain.

Parental Stress: A Mediating Role?

Given these previous findings, it appears that child temperament, parental stress, and parenting behaviours are interrelated. While a wealth of studies have documented the link between (1) child difficult temperament and poorer parenting, and (2) parental stress and poorer parenting, relatively little research has paid attention to the subjective experience of parents of children with a more difficult temperament. Some studies suggest though, that a difficult child temperament is associated with mothers' higher levels of stress (Gelfand, Teti, & Fox, 1992; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Mäntymaa, Puura, Luoma, Salmelin, & Tamminen, 2006; Webster-Stratton & Hammond, 1988). The impact of effortful control and surgency on parental stress has, to our knowledge, not been studied specifically. Based on personality studies, surgency may have a positive influence on personal and social outcomes (Watson & Clark, 1992). One may hypothesize that high levels of surgency during toddlerhood would have a positive effect on parental experience (lower stress) and parental behaviours (Prinzie et al., 2012). Similarly, one could expect that the more toddlers are able to regulate themselves, the less burdened and stressed parents may feel and the more autonomy they would be willing to grant their toddlers.

Studies have shown that parents' psychological well-being mediates the association between children's temperament and their parents' parenting behaviours (Laukkanen, Ojansuu, Tolvanen, Alatupa, & Aunola, 2014; Sanson & Rothbart, 1995; Teti & Gelfand, 1991). Though there is some indirect support for the mediating function of parental stress in the association between child temperament and AS in parenting, to the best of our knowledge, this relationship has yet to be studied explicitly.

Toddlers' Gender and Age: Potential Moderators?

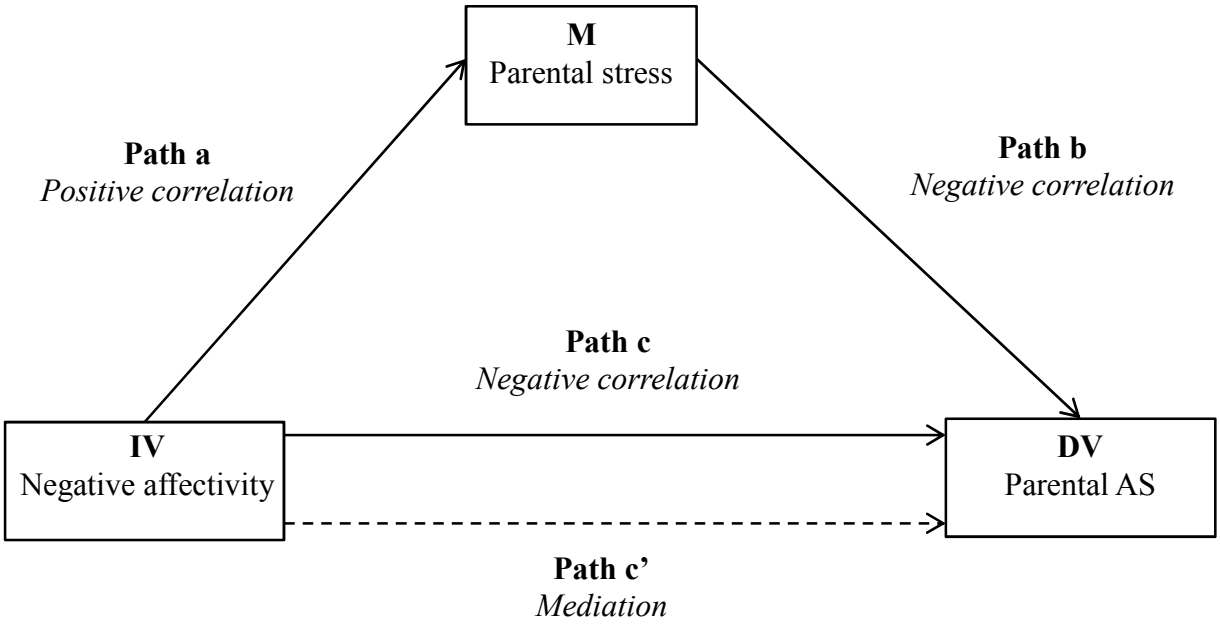
Raising a boy is different than raising a girl and as toddlers get older, the parenting experience changes. Thus, the associations between toddlers' temperament with parental stress and AS could be influenced by toddlers' gender and age. In regards to the role of toddlers' gender, it appears that boys are higher in irritability (Moss, 1967), and activity level (Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006), which could increase parental stress. However, boys' emotional and behavioural tendencies tend to be better accepted (e.g., Malatesta & Haviland, 1982; Putnam, Sanson, & Rothbart, 2002).

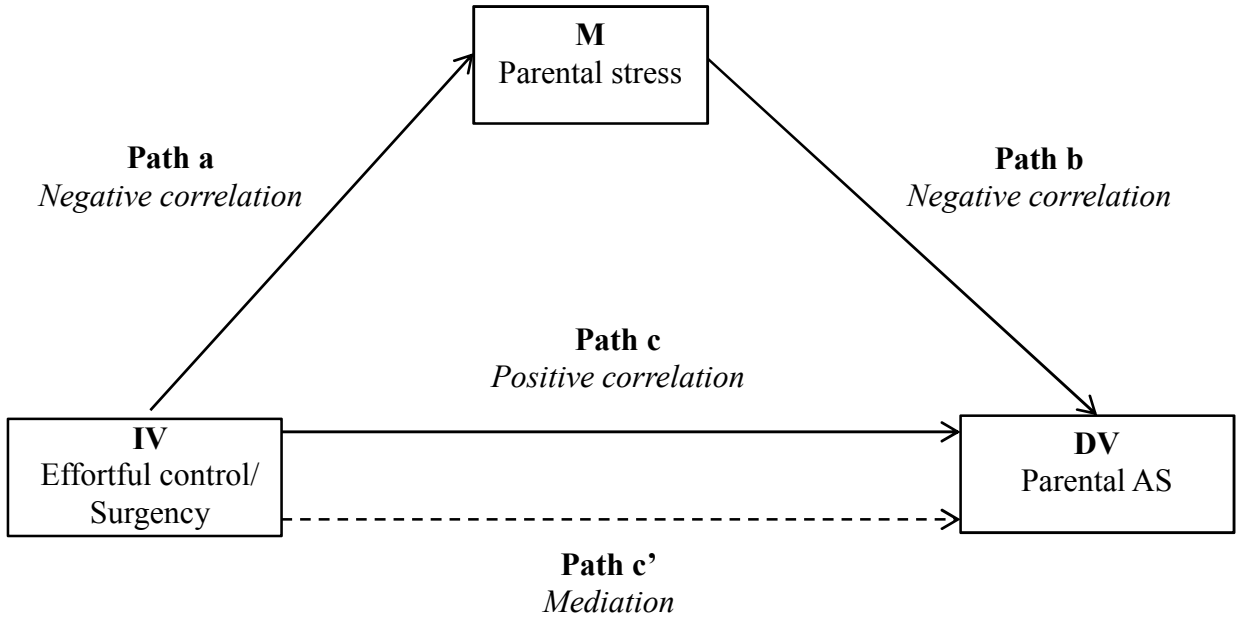
Regarding toddlers' age, children's temperament may be responded to differently as they get older. In such cases, one would expect that temperamental differences would decrease with age, with parents having had more time to adjust to their child's unique personality. On the other hand, challenging behaviours and emotions may seem less acceptable from older toddlers. Exploratory moderation analyses will be conducted to address these questions.

The Present Study

The main goal of this study was to test whether parental stress mediated the relationship between toddlers' temperament and parents' autonomy-supportive practices. To reach this goal, the present study first examined whether toddlers' negative affectivity, a form of "pressure from below", was associated with parental stress and AS. Since negative affectivity is the temperamental dimension seen as making parenting challenging, we hypothesized that it would be linked with less parental AS. We also hypothesized that greater parental stress would be associated with less autonomy-supportive practices. Finally, we

expected that negative affectivity would be positively linked with parental stress, which would mediate the negative relationship between toddlers' negative affectivity and parental AS.





Second, we hypothesized that effortful control would foster AS, as greater self-control may decrease the level of parenting difficulty when making requests. We also expected that effortful control would be negatively associated with parental stress, which would mediate the positive relationship between toddlers' self-regulatory capacities and parental AS.

Thirdly, we hypothesized that greater levels of surgency would be related with more parental AS, since this "extraverted" tendency has been described as an emotionally positive and lively personality; a trait that appears to bolster the quality of social relationships with peers, friends, and adults (Zupančič & Podlesek, 2010). Moreover, we expected surgency to be negatively correlated with parental stress, which would also serve to mediate the positive relationship between toddlers' level of surgency and the frequency of use of autonomy-supportive practices.

Finally, we planned to use exploratory interaction analyses to examine whether some of the seven postulated links (i.e., stress with AS, as well as each of the three temperamental variables with parental stress, and parental AS) would be moderated by toddlers' sex and/or age.

Method

Recruitment

The current project is analysing unexplored data from the sample of parents that were recruited from the previous study (Andreadakis, Joussemet, & Mageau, unpublished manuscript). While some participating parents were recruited through parent associations and parenting blogging websites, the majority of the sample was recruited from daycare centers within the Montreal area, in the province of Québec. Once ethical approval was obtained, daycare principals interested in the study facilitated recruitment by sending out letters, posting

a recruitment flyer and/or, by permitting the researchers to recruit interested parents on site. The principal investigator always communicated with parents (i.e., by face-to-face or telephone contact) prior to giving them access to the online questionnaire, in order to confirm their eligibility. The inclusion criteria for parents were being able to read and write in French and having a toddler aged between 18 and 36 months. Only one parent per family was permitted to fill out the questionnaire.

Participants

The sample of parents originally contained 196 participants, however, due to the fact that a large portion of questions remained incomplete, the data of 14 participants were completely eliminated. Consequently, a total of 182 parents participated in the study (145 mothers; 37 fathers). The majority of the sample spoke French at home (92.0%) and the average age of their toddler (91 boys; 91 girls) was 27.08 months (SD = 5.46). The average age of parents was 33.78 years old (SD = 4.82), ranging from 21 to 45 years old. Most (70.2%) had a university degree and were either married or in a common law relationship (98.2%). Finally, the majority of participants (73.6%) identified themselves as Canadians while 26.4% categorized themselves as "Other" (e.g., African, Italian, Mexican, Arabic origins).

Procedure

After completing the consent form, parents could proceed to fill out their questionnaire. A list of parenting practices was first presented, in random order. Next, parents were asked to answer questions about their toddlers' temperament, their general stress, and to provide socio-demographic information. The entire questionnaire took approximately one hour to complete. Participants were able to access the questionnaire at any time and

complete it at different intervals. Once completed, participants were mailed a twenty dollar compensation check.

Measures

Autonomy-supportive parenting practices. Autonomy-supportive parenting practices were evaluated in the "request" context. This context was made explicit to parents by first presenting examples of "important things toddlers need to do and that are not always enjoyable" (e.g., pick up toys, put on a hat, take a bath). Next, participants were asked to add examples of the daily requests they make to their toddler. Parents were then presented with a list of eight autonomy-supportive practices and asked to rate how often they use each of them, on a 6-point Likert scale ranging from 0 (*never)* to 5 *(all the time)*. The stem preceding the listed strategies was "*When you ask your toddler to do something he/she doesn't like doing (e.g., getting dressed, taking a bath, picking up the toys), how often do you…*" or "*Once you realize that your toddler is not listening to your request, how often do you…*". These eight strategies (see Table 1) showed good internal consistency (α = .74) and content validity (Andreadakis, Joussemet, & Mageau, unpublished manuscript). Items were averaged and the mean score was used in subsequent analyses.

Toddler temperament. The French version of the very short form of the Early Childhood Behaviour Questionnaire (ECBQ) was used to measure the three dimensions of children's temperament (Putman & Rothbart, 2006). Parents were presented with 36 items (12 items per dimension) asking them how often a particular behavior occurred within the last two weeks. Parents rated each item on a 7-point Likert scale ranging from 1 *(never)* to 7 (*always*; Putnam, Garstein, & Rothbart, 2006).

Negative affectivity (internal consistency: $\alpha = .68$) refers to the display of negative emotions such as sadness and irritability (e.g., "When s/he asked for something and you said "no," how often did your child have a temper tantrum?"; Putnam et al., 2001). Effortful control (internal consistency: $\alpha = .74$) refers to a child's capacity to self-regulate (e.g., "When told "no", how often did your child stop the forbidden activity"; Frick & Morris, 2004; Rothbart, 2005; Putnam & Rothbart, 2006). Surgency/extraversion (internal consistency: $\alpha = .62$) refers to a child's level of activity, positive anticipation, sensation-seeking and the extent to which his/her emotional reactivity tends towards high levels of positive affect (Rothbart, 2004; e.g., When encountering a new activity, how often did your child get involved immediately?). The mean scores of each subscale were computed and used in subsequent analyses.

Parental stress levels. The Perceived Stress Scale (PSS-10; Cohen, Kamarck, & Mermelstein, 1983) was used to measure to what extent parents' appraise situations in their lives as stressful throughout the preceding month. They were presented with 10 items (internal consistency: $\alpha = .84$) and were asked to rate how often they felt or thought about a certain situation, on a 5-point Likert scale ranging from 0 *(never)* to 4 *(very often*; e.g., "In the last month, how often have you… been upset because of something that happened unexpectedly?"). The sum of the item scores was used in subsequent analyses. Scores range from 0 to 40, with higher scores indicating greater stress (i.e., the more likely the parent perceives that environmental demands exceed their ability to cope). The French version of this scale also had good internal consistency ($\alpha = .86$ in the present study).

Results

Preliminary analyses

Table 2 presents the descriptive statistics for the study variables and the zero-order correlations between them. Regarding the three dimensions of toddlers' temperament, negative affectivity was found to correlate negatively with effortful control, but was not linked to surgency. In contrast, effortful control and surgency were positively related. Our predictions regarding the associations between the main variables were supported. Firstly, the reported use of autonomy-supportive practices was negatively correlated with toddlers' negative affectivity. In addition, autonomy-supportive practices positively correlated with effortful control, as well as with toddlers' levels of surgency. Thirdly, consistent with our prediction, parental stress was found to be negatively associated with the use of autonomy-supportive practices and with toddlers' effortful control. The expected positive link between stress and negative affectivity was also found. However, parental stress was unrelated to surgency, such that the principal analyses focused on negative affectivity and effortful control.

Next, toddlers' age and sex were also analyzed to examine whether they were related to the central variables. Toddlers' age was positively correlated with effortful control and with the frequency of use of autonomy-supportive practices. Therefore, it was included as a covariate in subsequent analyses pertaining to AS. No other significant correlation was found with toddlers' age (all *ps* > .050). Using independent samples t-tests, toddlers' sex was solely significantly related with negative affectivity and surgency.[1] There was no difference in autonomy-supportive behaviours towards boys and girls (all *p*s > .050). Given that toddlers' sex was unrelated to AS, the dependent variable in the principal analyses, it was not retained as a covariate.

Principal analyses

Mediation models were tested to examine whether parents' stress mediated the relationship between toddlers' temperament and parental use of autonomy-supportive practices. Baron and Kenny's (1986) mediational analysis, paired with bias-corrected bootstraps (Efron & Tibshirani, 1993), was conducted using Hayes' PROCESS Procedure for SPSS 2.13 tool (Hayes, 2013). The variables were entered in standardized form (i.e., using *z* scores) in order to reduce potential multicollinearity problems. In addition, any participants with missing data were deleted (listwise) by the PROCESS tool.

First, we examined whether the negative relationship between toddlers' negative affectivity and parental AS, path c: b = -.227, p = .003, 95% Bootstrap CI [-.377, -.077], was mediated by parental stress, while controlling for toddlers' age (see Figure 1). Using ordinary least squares (OLS) path analyses, toddlers' negative affectivity was shown to significantly predict parental AS through its impact on parental stress, c' model: R^2 = .123, $F(3, 168)$ = 7.847, p =.000. This result was supported by the fact that toddlers' greater levels of negative affectivity were significantly associated with greater parental stress, path a: b = .334, p = .000, 95% Bootstrap CI [.187, .481], which in turn led to a decrease in the use of autonomy-supportive practices, path b: b = -.219, p = .005, 95% Bootstrap CI [-.371, -.067]. Also, the original association between negative affectivity and parental AS (path c) became non-significant when parental stress was included in the model, path c': b = -.154, p = .052, 95% Bootstrap CI [-.310, .001]. Furthermore, a bias-corrected bootstrap confidence interval, based on 10 000 bootstrap samples, indicated that the indirect effect from negative affectivity to parental AS, through parental stress, was significant, b = -.073, 95% Bootstrap CI [-.147, -.019]. The indirect effect predicted 7.220% of the variance in parental AS, which is a small

effect according to Cohen's (1988) guidelines, κ^2 = -.072, 95% Bootstrap CI [-.140, -.019]. In other words, when controlling for the effects of age, the link between toddlers' negative affectivity and autonomy-supportive parenting seems to be operating through parental stress. This finding supports the idea that parents have a tendency to use less AS the more they perceive their toddler as showing negative affectivity and this may be because their own stress is affected by this difficult temperamental aspect.

Next, we assessed whether, above and beyond the effects of toddlers' age, the positive relationship between toddlers' levels of effortful control and autonomy-supportive practices, path c: b = .267, p = .000, 95% Bootstrap CI [.121, .413], was mediated by parental stress (see Figure 2). Using ordinary least squares (OLS) path analyses, it was found that toddlers' effortful control indirectly influenced the frequency of use of autonomy-supportive practices through its effect on parental stress, c' model: R^2 = .131, F(3, 168) = 8.456, p = .000. This was supported, firstly by the fact that toddlers' greater effortful control was significantly associated with lower parental stress, path a: b = -.417, p = .000, 95% Bootstrap CI [-.556, -.277], which in turn led to a greater use of autonomy-supportive practices, path b: b = -.192, p = .017, 95% Bootstrap CI [-.348, -.035]. However, parents' perceived stress only partially mediated the association between toddlers' effortful control and parental AS, path c': b = .187, p = .021, 95% Bootstrap CI [.029, .346]. The association between effortful control and parental AS (path c) became weaker, which suggests mediation, but remained significant when parental stress was included in the model (path c'), suggesting that there was only partial mediation. Secondly, a bias-corrected bootstrap confidence interval, based on 10 000 bootstrap samples, indicated that the indirect effect was significant, b = .080, 95% Bootstrap CI [.002, .172]. The indirect effect predicted 8.000% of the variance in parental AS, which

represents a small effect according to Cohen's (1988) guidelines, κ^2 = .080, 95% Bootstrap CI [.003, .170]. The results of this mediation analysis demonstrated that when controlling for toddlers' age, the link between toddlers' effortful control and autonomy-supportive parenting seems to partially operate through parental stress. This supports the notion that parents tend to use more AS when they perceive their child as having more self-regulatory abilities and this may be explained partly by the fact that this perception decreases their stress levels.

Exploratory moderation analyses

Finally, in a series of multiple linear regression analyses, we tested whether toddlers' age or sex interacted with toddler negative affectivity and effortful control in their respective relation with parental stress and autonomy-supportive practices. We also tested whether toddlers' age or sex interacted with parental stress, in its relation with parental AS. The analyses, controlling for toddlers' age when needed, revealed no significant interactions (all *ps* > .050). In addition, the analyses, controlling for toddlers' sex, revealed no significant interactions either (all *ps* > .050).

Discussion

The primary goal of the present study was to verify how toddlers' temperament and parents' stress affected parents' use of autonomy-supportive practices in socialization contexts. The second goal aimed to evaluate the potential mediating role of stress in the relationship between toddlers' temperamental characteristics (i.e., negative affectivity, effortful control, and surgency) and parental autonomy support (AS). Exploratory analyses were also conducted to examine how surgency related to parental stress and AS. In addition, the possible moderating roles of toddlers' sex and age in the predicted associations were examined.

The results supported our hypotheses regarding toddlers' "difficult" temperament and its association with parental stress. Firstly, the more toddlers' exhibited negative affectivity, the more stress parents reported. This provides evidence for the inherent difficulty of raising a more reactive toddler. Moreover, the hypothesis concerning toddlers' effortful control and stress was also supported. When toddlers manifested more self-regulation, parents reported feeling less stressed.

These temperamental characteristics were also related to the parental use of AS in socialization contexts. The more toddlers were described as displaying negative affectivity, the less parents reported using autonomy-supportive practices when asking them to do important yet unpleasant tasks. Conversely, parents of more self-regulated toddlers reported using more autonomy-supportive practices.

The significant links between toddlers' temperament and parental AS could be explained by parental stress: Negative affectivity and effortful control were found to influence parental stress, which in turn affected the likelihood of parents using autonomy-supportive practices. More specifically, parental stress was found to fully mediate the negative association between toddler negative affectivity and parental AS, such that toddlers' negative affectivity did not, by itself, "elicit" AS or "prevent" it from taking place. Interestingly, the positive relationship between self-regulatory abilities in toddlers and parental AS was only partially mediated by parents' stress levels, indicating that although stress played a role in parents' ability to support their toddler's autonomy, toddlers' effortful control was also directly associated with AS. Overall, the present findings suggest that toddlers' negative affectivity challenges autonomy-supportive parenting by increasing parental stress, whereas

toddlers' effortful control facilitates AS both directly and indirectly by decreasing parenting stress.

Additionally, we found that neither toddlers' sex or age moderated the associations between toddlers' temperament, parental stress and AS. This suggests that all toddlers are at risk of receiving less AS if they are perceived as being more reactive and/or as having difficulty self-regulating, regardless of whether they are a boy or a girl, or if they are younger or older toddlers. In other words, no matter their age or sex, a child's effortful control is a protective factor against parental stress as well as one that promotes autonomy-supportive parenting. Conversely, a child's negative affectivity seems to always represent a risk factor for parental stress and for receiving less AS, and that parental stress invariably decreases the odds of parents manifesting AS towards toddlers.

The result pointing to negative affectivity acting as a stressor for parents (i.e., a form of pressure from below) is in accordance with earlier studies documenting a link between children's difficult temperament and parental stress (e.g., Gelfand et al., 1992; Östberg & Hagekull, 2000). Having to deal with taxing temperamental characteristics can exhaust their personal resources and cause them to experience added stress. It thus seems that negative affectivity may pose an extra burden on parenting (Belsky, 1984; Thomas & Chess, 1977). On the other hand, parents feel less stressed when children are better able to self-regulate. This finding may be explained by the fact that parents may need to soothe and monitor their toddlers to a relatively lesser extent when they are better able to do so effectively on their own.

Child temperament is particularly influential to parents' behaviours in the early years (Belsky, 1984). Research on difficult child temperament has previously documented a link with less sensitive parenting behaviours (e.g., Putnam, Sanson, & Rothbart, 2002; Sanson &

Rothbart, 1995), as well as less positive guidance and reinforcement (Calkins, 2002; Harrington, Black, Starr, & Dubowitz, 1998). Regarding negative affectivity specifically, research has shown that it is associated with harsh disciplinary styles (Kochanska et al., 2004), punishment and/or power assertion (Sanson et al., 2004), and hostile parenting attitudes (Katainen, Räikkönen, & Keltikangas-Järvinen, 1997). While prior research clearly shows that negative affectivity puts parents at higher risk of using controlling practices, the present study adds that autonomy-supportive practices are also difficult to maintain when children are perceived as having negative affectivity. More specifically, when toddlers display more negative affectivity, parents felt more stressed and this higher stress level prevented them from using autonomy-supportive practices.

The present study investigated one possible explanation for this result, and provides support for the hypothesis that toddlers' temperament affects parents' stress levels, which in turn is related to the likelihood that parents will use autonomy-supportive practices in socialization contexts. When parents are faced with a more intense and difficult to soothe child, they may feel irritated, inadequate, and/or even helpless thus putting them at risk of employing less sensitive parenting practices (Bugental & Lewis, 1999), because they are experiencing emotions that may increase their general stress levels. The mediating role of stress was expected, since it depletes energy, patience, and cognitive resources, which are all needed to maintain AS (Grolnick, 2003).

Much like negative affectivity, toddlers' *lower* effortful control can also certainly "pull" for more controlling, less autonomy-supportive parenting behaviours while toddlers who exhibit more effortful control may make it easier for parents to be autonomy-supportive (Grolnick & Ryan, 1989). Our findings point to the fact that having to frequently monitor,

guide, and redirect the behaviours of toddlers who have less effortful control seems to have an impact on parental AS. Perhaps parents attempt to cope with the stress brought on by their toddler's intense and lingering emotions by taking over the situation, which helps them feel in control but which thwarts their child's autonomy in the process. In contrast, when toddlers take on a more active role in the regulation of their affect and behaviour, their parents may feel more comfortable in relinquishing more autonomy. Child self-regulation seems to decrease the parental burden, helping parents to trust their toddlers and support their growing autonomy.

The mediating role of parental well-being in the link between children's temperament and mothers' parenting style had been alluded to in the past (Sanson & Rothbart, 1995; Teti & Gelfand, 1991). In Solmeyer and Feinberg's study (2011), children's difficult temperament was associated not only with mothers' parenting behaviours but also with their low levels of psychological well-being. It was also found to be associated with mothers' elevated stress levels (Gelfand et al., 1992; Mäntymaa et al., 2006; Mulsow et al., 2002; Webster-Stratton & Hammond, 1988). The present study contributes to this literature by studying this mediation path explicitly: When toddlers showed better abilities in effortful control, parents felt less stressed, which helped them use more parental AS.

Limitations and Future Directions

Despite its novel findings, the present study has several limitations that should be mentioned. Firstly, relying on questionnaires is limited in contrast to observing parents interact with their toddlers. Observational data would provide richer and more reliable information, most notably in socialization contexts. The effects found in the present study

may have been inflated or deflated due to various biases, such as social desirability (e.g., parents may have over-reported their use of autonomy-supportive parenting practices).

Second, the self-report measures were all provided by the same parent, which could create a shared method variance bias. It is indeed possible that some of the variance may be explained by the use of a common method (i.e., the variance that is attributable to the method of measurement rather than to the constructs the measures represent; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Thus, the present findings should be interpreted with caution and replicated using multiple informants.

The absence of a significant correlation between surgency and parental stress should also be interpreted with caution. While it is possible that child surgency doesn't influence parenting, the nonsignificant result can also be explained by the low internal consistency of the surgency subscale (French version of the ECBQ; $\alpha = .62$). Given that the surgency measure is less reliable, it is difficult to ascertain the exact explanation for the absence of a link.

Failure to track participants over a longer time is another limitation. Future studies could use longitudinal cross-lagged models which can provide some evidence regarding the direction and strength of the relationships between toddlers' temperament, parental stress, and AS over time (Lewis-Beck, Bryman, & Liao, 2004). Importantly, since correlational designs prevent causal conclusions to be drawn, conducting experimental studies would allow researchers to verify whether reducing parental stress can help increase autonomy-supportive parenting.

Since the study did not assess parents' personality traits, it is not possible to examine their role in the association between toddlers' negative affectivity and parental use of

autonomy-supportive practices (Paulussen-Hoogeboom et al., 2007). Indeed, parental personality is an important predictor of parenting stress levels and chronicity (Mulsow et al., 2002). Future studies would do well to take parents' personality traits into account since they influence parents' perception of their toddler's temperament (Rothbart & Bates, 1998), and of their own parenting practices (Belsky, 1984). Moreover, future applied work could include personality inventories as potential screening measures, since mothers who are more anxious, depressed, withdrawn, or paranoid may need extra help when it comes to managing the stressors of parenthood and getting the necessary social support (Mulsow et al., 2002). Given how important social support is in helping reduce stress (Aldous, 1995; Belsky, 1984; McLoyd, 1990), and how determinant parenting practices are for child development (Aldous, 1995; Bradley, Whiteside-Mansell, Brisby, & Caldwell, 1997; Burchinal, Follmer, & Bryant, 1996; Howes & Stewart, 1987; Turner & Avison, 1985), screening parents who are at risk for not seeking help may represent a significant preventive measure.

Implications and Future Directions

Despite the study's methodological limitations, the pattern of findings shed light on factors that may hinder autonomy-supportive parenting during toddlerhood, an area that has received very limited attention until now. Toddlers' temperamental characteristics as well as parental stress put the parent-child dyad at risk for sub-optimal parenting behaviours, and pointing to stress as a mechanism may support further empirical and applied work targeting parents' subjective experience.

The present study thus has some practical implications concerning how to help parents as they socialize toddlers who exhibit greater sensitivity and reactivity. Firstly, helping them obtain social support seems to be a first essential step, since social support has been associated

with lower parenting stress, especially in children's second year of life (Mulsow et al., 2002). Support groups with parents going through (or having gone through) similar challenges may be helpful in normalizing their situation, decreasing parental stress, providing opportunities to share their experience and/or in getting helpful tips about how to cope with the demands of a more "difficult" toddler.

It would also be important to teach parents how to maintain AS even during difficult times, which would probably help them avoid controlling tactics (Scaramella & Leve, 2004). Since AS has been shown to bring about numerous benefits (Hart et al., 2003; Joussemet, Landry, & Koestner, 2008), AS training could serve as a buffer against temperamental risk factors. For instance, the "How-to" Parenting Program (Faber & Mazlish, 1980, 2000, 2010) teaches parents applicable skills that embody the key components of autonomy-supportive parenting (Joussemet, Mageau, & Koestner, 2013). Children of parents who followed this program reported more AS from their parent and their internalized, and externalized difficulties were significantly reduced. Interestingly, these positive mental health benefits were stronger for children with higher negative affectivity (Mageau, Joussemet, Koestner, Beaudet-Ménard, & Lessard, 2015).

Future research could include a cognitive retraining component in the "How-to" Parenting Program. Informing parents that negative emotionality is part of their child's temperament and not a form of "bad" behaviour may help them be more compassionate towards their child and towards themselves, which could consequently foster stress reduction (Östberg & Hagekull, 2000). Indeed, restructuring parents' perceptions of their toddlers' temperament can help parents identify how they may reinforce or perpetuate negative parenting cycles and ameliorate the way they interact with their child. Similar to Bugental and

colleagues' (2002) cognitive retraining program aimed to prevent child maltreatment among at risk parents, an intervention program that couples restructuring parents' biased cognitions towards their "difficult" children with the teachings of autonomy-supportive parenting practices could help promote optimal caregiving relationships and parenting practices. Together, these suggestions of interventions may be beneficial in decreasing parents' stress and helping them support their toddlers' need for autonomy, even in the face of a more challenging child temperament.

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Footnote

[1]Independent samples t-tests showed that girls had greater levels of negative affectivity (M = 3.106, SD = .645) than boys (M = 2.875, SD = .677) in this sample, $t(176) = -2.327$, p = .021, η^2 = .030, while boys were reported to display higher levels of surgency (M = 4.800, SD = .583) than girls (M = 4.575, SD = .644), $t(176) = 2.451$, p = .015, η^2 = .033.

Table 1

List of Eight Autonomy-supportive Parenting Practices

Autonomy-supportive Parenting Practices
1. Explain the reason(s) behind your request (i.e., say why it's important to do it) by giving a short explanation (e.g., "You have to put your boots on because it's cold.").[a]
2. If your toddler asks why he/she has to do it, explain why it's important.[a]
3. Hear your toddler out if he/she protests (i.e., listen to what he/she has to say).[b]
4. Describe the problem (e.g., "It is difficult to walk around with all these toys on the floor.").[a]
5. Take your toddler's desires into account when making your request (e.g., "I can see you still want to play but it's time for a bath. Why don't you take your toy with you".).[a]
6. Show your toddler that you understand that he/she is annoyed by your request.[b]
7. Acknowledge your toddler's feelings (e.g., anger, fear, etc.) with a sound such as "Hmm…" and/or by naming the feeling.[b]
8. Show your toddler what you want him/her to do by doing it yourself as well (e.g., put your own hat on; wash your hands with him/her).[a]

Note. A French version of this questionnaire is available. All items were translated from English to French using the back-translation procedure (Vallerand, 1989) by two research assistants, and they were then reviewed by the first and second authors before finalisation. [a]Strategies presented after the stem "When you ask your toddler to do something he/she doesn't like doing (e.g., getting dressed, taking a bath, picking up the toys), how often do you…". [b]Strategies presented after the stem "Once you realize that your toddler is not listening to your request, how often do you…"

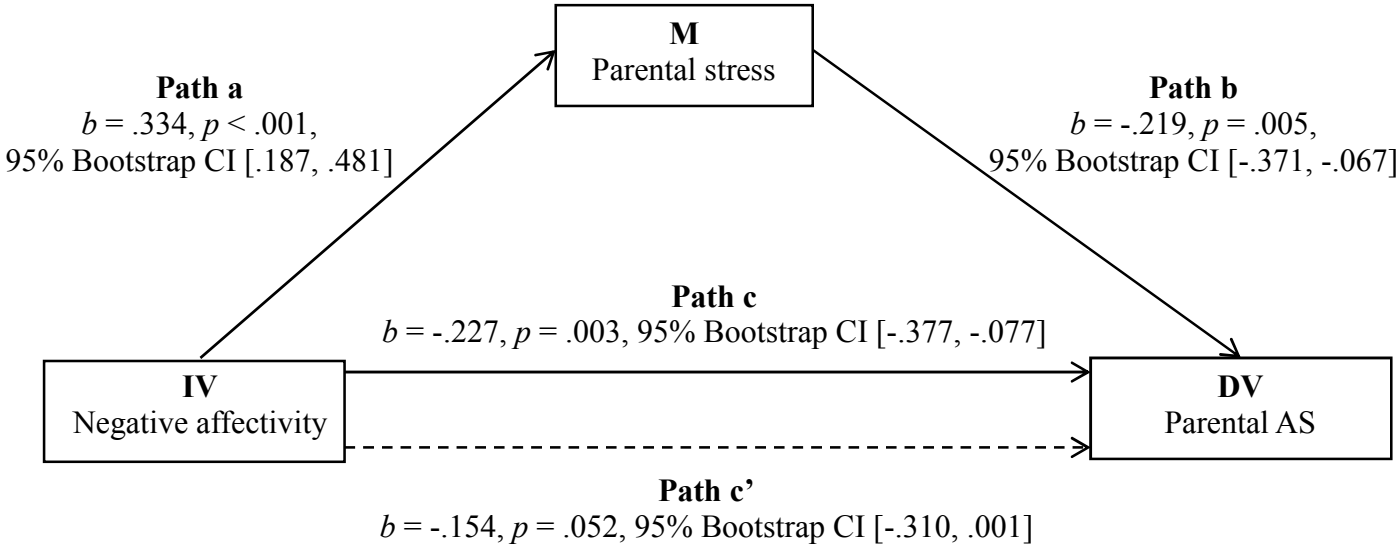
Table 2

Means, Standard Deviations, and Zero-order Correlations Between Study Variables

Measure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*M*	*SD*
1. Toddlers' negative affectivity								2.992	0.669
2. Toddlers' surgency	-.121							4.686	0.623
3. Toddlers' effortful control	-.283***	.189**						4.448	0.669
4. Parental use of autonomy-supportive practices	-.189**	.195*	.283***					3.837	0.759
5. Parental stress	.323***	-.100	-.387***	-.249***				22.346	6.675
6. Toddlers' age (months)	.088	.007	.156**	.182**	.091			27.080	5.462
7. Toddlers' sex (0 = boys; 1 = girls)	.173**	-.182**	.085	-.115	-.037	-.058		(50%)	(182)

Note. N = 173 to 182.

*p < .010. **p < .050 level. ***p < .001.

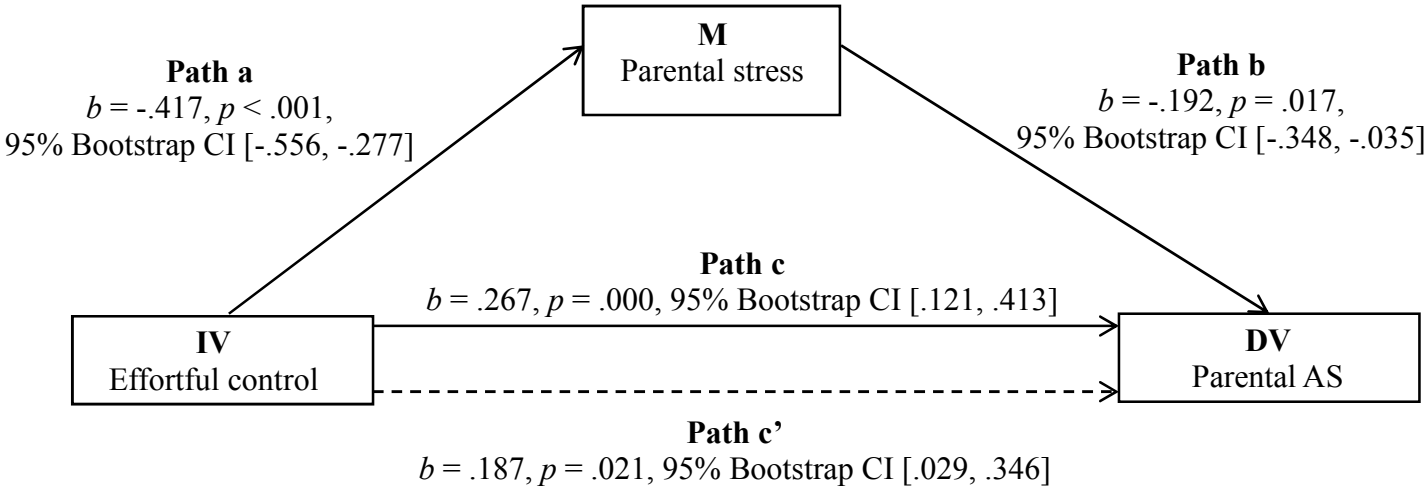


Model A: R^2 = .115, $F(2, 169) = 10.954$, $p < .001$

Model C: R^2 = .080, $F(2, 169) = 7.395$, $p = .001$

Model C': R^2 = .123, $F(3, 168) = 7.847$, $p < .001$

Figure 1. Relations between toddlers' negative affectivity and autonomy-supportive practices as mediated by parental stress. Path c' represents the regression coefficient between negative affectivity and the reported use of autonomy-supportive parenting practices when the mediator is included in the model.



Model A: $R^2 = .179$, $F(2, 169) = 18.383$, $p < .001$

Model C: $R^2 = .101$, $F(2, 169) = 9.509$, $p < .001$

Model C': $R^2 = .131$, $F(3, 168) = 8.456$, $p < .001$

Figure 2. Relations between toddlers' effortful control and autonomy-supportive practices as mediated by parental stress. Path c' represents the regression coefficient between effortful control and the reported use of autonomy-supportive parenting practices when the mediator is included in the model.

Chapter IV: Conclusion

Thesis' Goal

This current dissertation aimed to enrich the literature on autonomy-supportive parenting by identifying practices that are used amongst parents of toddlers who value autonomy support (AS) to a greater extent. To complement previous research, the focus of this exploration was done in a socialization context, specifically when parents make requests to their toddler. Moreover, we wished to evaluate what factors can influence the use of these types of practices, since parents' child rearing practices have long been shown to be influenced by various factors stemming from the caregiver, the child and/or the environment in which parenting takes place.

To conclude this dissertation, the studies' main findings will be discussed first with a special focus on interpreting how the eight autonomy-supportive practices pertain to the classical operational definition of AS. Next, we will discuss how new practices, identified as autonomy-supportive but not part of the initial definition, help adapt the manifestation and applicability of AS towards toddlers. Thirdly, we will review the reasons why certain putative autonomy-supportive practices were not retained as well as suggest some ideas for future research. Fourthly, the discussion will focus on the role of child temperament in influencing the use of certain parental behaviours and how parental stress mediates this relationship. Finally, the negative impact of controlling parenting on children's development will be addressed, highlighting the importance for parents of obtaining social support to buffer against risk factors and to help them maintain a positive, autonomy-supportive stance with their children.

Autonomy-supportive Parenting Practices for Toddlers (Study 1)

In the first article, we aimed to examine what practices parents of toddlers who valued AS to a greater extent tended to use more frequently on a day-to-day basis to get toddlers to complete important but uninteresting tasks, such as getting dressed or being put in their car seat. Anchored in self-determination theory (SDT; Deci & Ryan, 1980; 1985; 1991; 2000), this study explored how the classical components of the AS operational definition (i.e., choice, rationale, empathy, non-controlling language) were manifested in a parent-*toddler* socialization context and examined what other potentially autonomy-supportive practices might be used. Furthermore, given that AS has been positively linked with older children's internalization of rules and values (Boggiano, Flink, Shields, Seelbach, & Barrett, 1993; Deci, Eghrari, Patrick, & Leone, 1994; Joussemet, Koestner, Lekes, & Houlfort, 2004; Koestner, Ryan, Bernieri, & Holt, 1984), we wondered whether the use of identified autonomy-supportive practices would also be positively related to toddlers' internalization.

The results of Study 1 highlighted eight autonomy-supportive practices that were used by parents who valued AS to a greater extent and whose higher frequency of use was found to be associated with toddlers' greater internalization of rules. Four out of the eight practices (i.e., hearing your toddler out, showing your understanding, taking his/her desires into account, and acknowledging his/her feelings) corresponded to the concept of empathy, one of the main components of AS (Deci et al., 1994; Grolnick, Deci, & Ryan, 1997; Hoffman, 2000; Koestner et al., 1984).

Empathy/perspective-taking. Empathy can be seen as a parent's way of seeing life from their children's perspectives and acting in their best interests (Grolnick, 2003). It gives acknowledgement towards their feelings and conveys respect, and legitimacy for their desires

(Deci et al., 1994; Grolnick et al., 1997). Empathy is composed of two dimensions that are distinct but work synergistically (Davis, 1983). While *affective empathy* signifies vicariously experiencing the same or similar emotions as others, *cognitive empathy* signifies the *understanding* of another's emotions through perspective-taking (Black & Leszczynski, 2013; de Wied et al., 2007). The four empathy items resulting from the first study seem to be tapping into the cognitive aspect of empathy. Having parents acknowledge and demonstrate their understanding of their toddler's feelings may be adequate ways to convey respect and give value to their internal experiences. In addition, by hearing them out and taking their desires into account, parents provide the opportunity for their toddler's feelings and interests to be validated. These practices seem to be good ways to acknowledge toddlers not only as unique individuals with different and worthy preferences, but as experts of their own subjective worlds. They seem to be promising, healthy ways of teaching toddlers how to communicate what they feel, to assert their needs and, through modeling and rehearsal opportunities, how to convey the same respect to others (Bandura, 1986).

Empathic communication is important early in life as it has been shown to influence many aspects of emotional development in children (de Minzi, 2013). To begin with, research has shown a link between parental empathy and child attachment. Oppenheim, Koren-Karie, and Sagi (2001) found that preschoolers who had a secure quality of attachment had parents who held a rich understanding of their children's point of view. In addition, some studies have found a positive relationship between mothers' empathic caring and children's altruism (Zahn-Waxler, Radke-Yarrow, & King, 1979). Focusing on child comprehension and sympathetic/empathetic understanding can even help at risk families to form more secure relationships (Black & Leszczynski, 2013), which have been shown to lead to better child

outcomes (e.g., Elicker, Englund, & Sroufe, 1992; Sroufe, 2002; Sroufe, Egeland, Carlson, & Collins, 2005).

It seems that caregivers who are accepting of children's emotions, even "negative" ones, also facilitate children's emotional understanding (Spinrad et al., 1999). Indeed, children whose mothers were shown to be more responsive and supportive of their negative emotions by showing them comfort or teaching them more constructive coping strategies were found to better regulate their emotions (Bridges & Grolnick, 1995; Calkins, 1994; Cassidy, 1994; Kopp, 1989). On the other hand, when parents restrict their children's expression of emotion or react in a punitive manner, children may in turn show less empathy or sympathy towards others, avoid helping others in distress, and even learn to deny or suppress their own subjective experiences (Eisenberg, Fabes, Schaller, Carlo, & Miller, 1991; Tomkins, 1963).

Communicating rationales. Two of the eight identified practices (i.e., giving a short explanation(s) for parental requests and explaining their value and/or importance) appeared to be pertinent to autonomy-supportive parents and corresponded to the component "providing rationales" of AS (Deci et al., 1994; Koestner et al., 1984). However, providing long explanations was not endorsed by these parents, suggesting that longer rationales were not deemed appropriate for toddlers, as they may not be understood and/or be perceived as lectures (Faber & Mazlish, 2012). As Reeve, Jang, Hardre, and Omura (2002) explained, it's always important to provide rationales but in order for them to be internalized, they have to be communicated in an autonomy-supportive manner. The fact that the autonomy-supportive parents of our study prioritized shorter explanations as opposed to longer ones for their toddlers provides evidence for this idea. What is more, it clearly illustrates an example of how parental AS involves "putting oneself in one's child's shoes". Parents who value AS to a

greater extent thus seem to adapt their rationales according to their toddler's attention and language level.

Because internalization of rules and values is a proactive process, a personally meaningful rationale for toddlers may aid them in understanding why adhering to a parental demand would have personal utility. Perhaps this serves as a mechanism underlying self-regulation, which could explain how AS promotes internalization. For instance, when Sansone, Weir, Harpster, and Morgan (1992) asked adults to engage in a necessary but uninteresting task, participants showed more task engagement when they were also told that completing the task would provide them with health benefits. It appears that providing meaningful rationales (even to oneself; Green-Demers, Pelletier, Stewart, & Gushue, 1998), may help individuals transform a boring activity into one that is more interesting; which may foster task engagement (Hidi, 1990; 2001).

If a toddler hates picking up her toys and putting them away in her bin, an example of a meaningful rationale would run along the lines of "By putting your toys away, we could make sure none of them get lost or broken". Yet, to help a young child internalize an externally provided reason as his/her own, parents first need to identify one that is personally meaningful to their child so that they can be motivated to put effort into the requested task.

Expanding the manifestations of AS. The final two items that loaded on the AS factor were: "Describing the problem (e.g., "It is difficult to walk around with all these toys on the floor") and "Showing your toddler what you want him/her to do by doing it yourself as well (e.g., put your own hat on; wash your hands with him/her)". Though these practices were not explicitly mentioned in previous definitions of AS, we believe they correspond to the

essence of this construct. We also argue that making them explicit in the provision of AS to toddlers may prove to be useful, particularly in knowledge transfer efforts.

"Describing the problem" is similar to the concept of "using non-controlling language", which is the fourth component of AS (Deci et al., 1994; Koestner et al., 1984). This practice item was inspired by motivational research (Ryan, 1982) and a parenting program (Faber & Mazlish, 1980; 2000; 2010; 2012), based on Haim Ginott's writings (1959; 1961; 1965; 1969). Faber and Mazlish (2012) explained that providing children with a description of the problem in an *informational* and *neutral* way as opposed to blaming the children (e.g., attacking their character) helps them better receive the message. Moreover, describing the problem may decrease the odds that toddlers feel guilt or shame, and enable them to find solutions on their own. Ryan (1982) also explained that when provided with informational feedback that is non-controlling and not tied to a particular outcome, it is likely to enhance interest in the activity and lead to an increase in intrinsic motivation.

The final item, "Show your toddler…" is considered to be a modeling practice, a teaching strategy derived from Albert Bandura's seminal work (1977). Modeling the desired behaviour is another way for parents to instill the desired behaviour without the use of controlling tactics. It may also relate to a non-domineering way to promote learning. Instead of conveying "Do what I say, not what I do", when parents also enact the desired behaviours, they convey that it is important for everyone, including themselves. This practice may also serve to support the verbal rationale that is often offered.

Practices That Were Not Retained in Study 1

Certain practices were considered potentially autonomy-supportive but were not retained in the present exploratory study because (1) they did not load with other autonomy-

supportive practices that parents used more frequently or (2) they did not correlate with the *Parent Attitude Scale* (PAS; Gurland & Grolnick, 2005), which we used to assess parental attitude towards AS.

Allowing the toddler to decide how to perform the task. The first practice was "providing choices", which was one of the classical components of AS (Grolnick, Gurland, DeCourcey, & Jacob, 2002; Koestner et al., 1984). The item that we included was: "Allow your toddler to decide how to perform the task". We believed that providing toddlers a choice in how to complete the request would instill a sense of responsibility and convey trust, and respect. According to SDT, providing people with an optimal amount of choices facilitates their intrinsic motivation, increases their persistence on a task (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), as well as their internalization (Deci, et al., 1994; Ryan, Connell, & Deci, 1985; Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004).

However, despite the common benefits of providing choices, it was not endorsed by parents, regardless of whether they valued AS or not. Rather than concluding that choice is not an autonomy-supportive practice for toddlers, we attribute this lack of endorsement to the way the item was written which may have generated confusion and misled parents. Perhaps some parents understood that their toddler would decide to complete the task whenever he/she wanted. A better formulation of the item would have conveyed the idea of suggesting a choice among a set of pre-determined options (e.g., sitting in the stroller or holding the stroller). Alternatively, parents may have perceived the choice practice as a manipulative tactic. Since toddlers are still asked to enact a desired behaviour, being flexible about how to complete it gives them a sense of a "false choice", which is deceitful. Finally, perhaps the requests that parents thought about while filling out the questionnaire were straightforward and thus not

suitable for the provision of choice (i.e., not possible to be completed by toddlers in different ways). In such instances, allowing him/her to decide how to complete the task may thus have seemed irrelevant.

On the other hand, perhaps parents did indeed understand what we intended to convey about offering choices but that simply more autonomy-supportive parents did not use it more frequently. Perhaps they didn't use this practice more often because they believed that choice is not an important, effective, or even relevant practice when socializing children of that age. Too many options may confuse toddlers and become counterproductive to the task at hand.

Certainly, many studies have shown that providing people with unlimited choices does not always come with benefits, particularly in terms of mental health and overall well-being (e.g., Botti & Iyengar, 2004; 2006; Botti, Orfali, & Iyengar, 2009; Fisman, Iyengar, Kamenica, & Simonson, 2006, Iyengar, Jiang, & Huberman, 2004; Iyengar, & Lepper, 2000). Indeed, Iyengar and Lepper (2000) found that when people are faced with a wide range of choices, they are less likely to select one of the options than when presented with a smaller choice set. This social phenomenon is known as "the tyranny of too much choice" (Schwartz, 2000, p. 81). In a study conducted by Vohs and colleagues (2008), several adverse effects were found as the number of choices offered to participants increased. It was associated with lower self-control, persistence, and performance. They suggested that when providing people with too many choices, it becomes effortful to identify and consider them all, and therefore, depletes important cognitive resources. A number of studies now also indicate that choosing among many options leads to subjective feelings of regret and dissatisfaction with the outcomes of the choices made (e.g., Iyengar, Wells, & Schwartz, 2006; Schwartz et al., 2002).

Using fantasy. Another item that we thought would load on an AS factor but did not was one that represented giving a child's wishes in fantasy. This item, "Use fantasy to show toddler that you understand his/her frustration (e.g., "I wish we had a magic wand so the room can be all cleaned up"), was inspired from Faber and Mazlish's parenting book (2012). Using fantasy could be one way parents can validate their child's emotions by making the unpleasant situation (i.e., a request that was given) easier to bear. We thought that this item could be considered autonomy-supportive because it taps into the cognitive aspect of empathy which involves parents acknowledging their toddler's feeling and differentiating their own needs from those of their children in order to understand why a "simple request" can be so frustrating. Since parents who valued AS to a greater extent did not report using this practice more frequently, the question about the potential pertinence of this practice remains unanswered. In retrospect, the example given did not truly illustrate wish fulfillment. Indeed, without proper context and explanation, simply reading a brief description may have generated various misinterpretations. For example, some parents may have perceived it as repeating their toddlers' desires in a sarcastic or mocking manner, as opposed to genuinely sharing their child's frustration and wishing they could make things easier for them. A better example would have been to have the parent respond to a child's refusal with wish-fulfillment. A final reason explaining this finding could be that parents did in fact find the item adequate but quite simply rarely used it, whether they valued AS or not. It could be seen as requiring a large amount of parental resources (e.g., imagination, positive mood, patience) to execute appropriately and effectively, resources that are not necessarily present frequently, particularly in contexts where requests are made.

Other practices. Some of the practices that we expected to be used by autonomy-supportive parents were: State the rule (e.g., "Toys belong in the toy chest"), follow through with a logical consequence (e.g., toddler is not allowed to go outside because he/she did not want to put sunscreen on) and warn toddler in advance about what's to be asked of him/her (e.g., "In five minutes, it's going to be time to pick up your toys").

Stating the rules of the household is a way to communicate expectations clearly, in an informational and neutral manner that avoids attacking the toddler's character. For instance, a parent could remind a child that "dirty dishes belong in the sink" as opposed to saying "I have told you a hundred times that you have to put your dirty plate in the sink!" which risks leaving the child with negative feelings about his/herself. This may also put the child in a mental state that is not receptive to rules, thus decreasing the likelihood of him/her following them and consequently, perpetuating the problem.

We also expected that warning children in advance about what would be asked of them would be a way for parents to put themselves in their toddlers' shoes. Indeed, toddlers do not know what their parents' schedule is and some of the tasks that may be requested of them may be unexpected or even surprising for them. If for example a child is playing when suddenly her parents request that she stops and takes a bath, it may feel unsettling. When warning in advance, toddlers know ahead of time what will be asked of them and are given time to prepare themselves. For instance, if children were warned ahead of time that they would have to leave the playground soon and go home, they would have a chance to feel the emotions that may come up and have their parent help them through it. In this case, in order to ease their frustration, the parent may suggest spending the last few minutes on their favourite play module (e.g., riding the seesaw instead of continuing to play in the sand). On the other hand,

it is also possible that toddlers may forget the request or become distracted, and so reminding them about what they will be asked to do may be helpful.

Instead of punishing, giving a logical consequence for a lack of cooperation is another practice we thought would be endorsed by parents who valued AS. Punishment is characterized by a parent purposefully depriving their child of something they desire for a certain amount of time or by inflicting pain in order to prevent their behaviour from re-occurring (Faber & Mazlish, 2012; Skiba & Dino, 1991). It could be seen as a way for the parent to blame or exact revenge on their child for what they did (Faber & Mazlish, 2012). On the other hand, consequences are characterized as the direct results of children's non-compliance (Faber & Mazlish, 2012; Dinkmeyer & McKay, 1983). Rather than exerting power, parents help their child trace back to what rule or request should have been followed, and teach them to take responsibility for their own actions (Faber & Mazlish, 2012).

It was not entirely clear why these three latter practices were not endorsed by parents who valued AS more strongly. There are several possibilities. Firstly, the manner in which the item concerning "stating the rule" was written may have failed to convey the style we were hoping to invoke and may have seemed unnatural or even cold, and blunt. Perhaps parents express rules differently, by introducing them in a "nicer" or "gentler" way. In regards to warning a toddler in advance about a request to come, parents may have seen it as unrealistic. They may not know everything that they will ask their toddler and so the item may have seemed irrelevant. Alternatively, perhaps this practice is more closely associated with toddlers' temperament than with an autonomy-supportive attitude, as it may be helpful for more reactive children. Perhaps parents who do plan to warn their toddler in advance have more reactive toddlers, who have more difficulty with transitions. Concerning logical

consequences, parents may have perceived the item as a threat or as punitive. Though logical consequences seemed close conceptually to "offering a rationale" and less controlling than attacking the toddler's character, or "retaliating" by inflicting punishment, more autonomy-supportive parents did not use this practice more often than more controlling parents. Also, we may have failed, within a brief item, to convey what we meant by a "logical" consequence.

The Importance of Observations and Experiments

The difficulty in interpreting why autonomy-supportive parents did not endorse the practices above point to the importance of including observational measures because biased interpretations of questionnaire items are eliminated in observations. Future research could focus on observing parents who value AS to a greater extent and examine how they actually make requests to their toddler. Although this method also has its own set of limitations (e.g., observer bias), researchers can obtain additional information that is not tapped into with the use of questionnaires, such as the tone of voice, facial expressions, posture, and gestures. Another key advantage of conducting observations is the possibility of identifying other practices used by parents that they may not be aware of using. For example, Laurin and Joussemet (2015) found that many parents sang a clean-up song when encouraging their child during a clean-up task. As a written item, this practice may have seemed irrelevant, but in reality, perhaps singing a song is a neutral and developmentally appropriate way to guide toddlers' attention towards the requested behaviour.

In Study 1, the frequency of use of autonomy-supportive practices was positively linked with toddlers' level of rule internalization. However, the study was correlational in nature, an important limitation. When researchers correlate two variables, in this case the frequency of use of autonomy-supportive parenting practices and toddlers' internalization, it is

impossible to determine whether toddlers who tend to better internalize parental requests make it easier for parents to employ autonomy-supportive parenting practices, whether the use of autonomy-supportive practices makes it easier for toddlers to internalize requests, if both contribute to each other, or if they are both caused by another variable (e.g., a shared personality trait, such as agreeableness). In order to truly test the causality of AS, experiments must be conducted. One example would be to have experimenters train a group of parents in autonomy-supportive parenting and then observe them in a "clean-up task" (Kochanska, 2002), in which toddlers' committed compliance (i.e., internalization) can be coded (e.g., Laurin & Joussemet, 2015). This group could then be compared to parent-toddler dyads in a control condition (i.e., who did not receive the parenting training yet) completing the same task with their toddler. This experimental design would enable researchers to measure the impact of autonomy-supportive parenting practices on toddlers' level of internalization.

Longitudinal studies would also help solve this causality dilemma to a certain extent. By measuring toddlers' level of internalization (e.g., using the "clean-up task" by Kochanska, 2002) at differing time points, studies would help verify whether AS does in fact play a positive role in promoting internalization. In symmetrical designs, which would also assess parental AS at each time point, allowing cross-lagged analyses, the direction of effects could be ascertained. In addition to parents, child care workers could also be asked to fill out internalization measures at different times, as well as psychological adjustment scales, such as the *Child Behavior Checklist* (Achenbach & Rescorla, 2000), a well-known measure for children's internalized and externalized psychological problems, and thus, measure and map out the long-term consequences of AS on children's development.

The Universality of the Need for Autonomy

SDT argues that the need for autonomy is universal, that people across all ages and cultures benefit from having this need supported (Chirkov & Ryan, 2001; Jang, Reeve, Ryan, & Kim, 2009; Lynch, La Guardia, & Ryan, 2009; Ryan & Deci, 2000; Soenens et al., 2007). The present study tested the universality of the basic need for autonomy to some extent, by exploring whether AS is beneficial amongst toddlers, a much younger sample than those typically studied. Future studies could attempt to generalize the results further. The present sample consisted of relatively well-educated parents with high economic statuses. The inclusion of at risk families, such as those living in poverty, in single-parent households, or families with children who suffer from developmental delays or sicknesses could test SDT's claim that the benefits of AS are universal. They would also further our knowledge about how parents under these conditions manage to provide AS.

SDT research conducted in the health domain suggests that the satisfaction of the three basic psychological needs, including autonomy, can help patients achieve a better state of mind that is predicted to and has been shown to initiate, and maintain health behaviours (e.g., tobacco abstinence, exercising, healthy eating, etc.; Ng et al., 2012; Ryan, Patrick, Deci, & Williams, 2008). Similarly, when a patient's psychological needs are supported, their participation in treatment is likely to be more self-determined, meaning that they are more willing to participate and adhere to their treatment plan long-term (Ng et al., 2012). Recently, Murray and colleagues (2015) examined the effects of need-supportive communication skills training on physiotherapists' supportive behaviour during clinical practice. Physiotherapists were taught 18 SDT-based practices, such as how to gauge patient's readiness to accept advice, provide a rationale, provide opportunities for patient input or choice, and use

autonomy-supportive communication instead of controlling language. The results demonstrated that patients who worked with physiotherapists who completed the program benefited from more support of their needs, compared to physiotherapists in the control group.

Communication intervention programs that teach skills like those in this program could be offered to parents. No matter how vulnerable the family is, parents could be taught how to communicate more effectively with their children. For instance, Austin, Guay, Senecal, Fernet, and Nouwen (2013) conducted a study with adolescents with diabetes and showed that perceived AS from health care providers was positively associated with adolescents' level of self-efficacy and autonomous self-regulation in their dietary self-care. This in turn led to better dietary self-care and greater adherence to their dietary recommendations. In addition, in an experimental study conducted with adolescents with severe maladjustment difficulties, AS was conducive to higher self-determined motivation for a boring yet important task, greater perceived task value and liking, as well as less negative affect, compared to a condition without AS (Savard, Joussemet, Emond Pelletier, & Mageau, 2012).

What Hinders AS: The Role of Child Temperament and Parental Stress (Study 2)

In Study 2, we examined what factors could possibly impede autonomy-supportive parenting. Given how much of the research points to parental stress and child difficult temperament as being potential risk factors, we decided to evaluate how these variables influenced the reported use of autonomy-supportive parenting practices. The results demonstrated that toddlers' negative affectivity was a risk factor that impeded autonomy-supportive parenting. Furthermore, this link seemed to operate through increased parental stress.

The negative link found between toddlers' negative affectivity and AS highlights the role of the child in influencing certain types of behaviours from the parent. Certainly, control is at least, in part, driven by child behaviour (Grolnick, 2013). For instance, children who are more anxious elicit certain types of practices, particularly parental overprotection (Chorpita & Barlow, 1998; Rapee, 2001). In a study where child difficultness was manipulated, mothers who were asked to teach anagrams to other people's children were observed to be more controlling with the more difficult children (Jelsma, 1982). Similarly, Anderson, Lytton, and Romney (1986) had mothers of normal and of conduct-disordered children interact in a laboratory setting with their own or others' children. The study revealed a use of more negative responses (i.e., parent expresses dislike/disapproval of the child's behaviours) when mothers were paired with conduct-disordered children, regardless of whether they were the mothers' own child or someone else's. While these studies provide strong evidence for the influence of child behaviour on parenting behaviours, the role of parental stress was not explored.

The findings regarding the temperamental aspect of effortful control provide further evidence for the role of child factors. Effortful control was defined as the ability to suppress a dominant response and/or to activate a subdominant response (Eisenberg & Spinrad, 2004; Rothbart, 1989; Rothbart & Bates, 2006). Toddlers' level of effortful control was positively associated with parental AS, indicating that as toddlers exhibited more levels of self-regulation, parents tended to use autonomy-supportive parenting practices more frequently. Perhaps toddlers with greater levels of effortful control may not need to be monitored closely because they have become aware of social standards and thus, don't need the constant

attention of their parent as would a toddler with lower levels of effortful control (Kochanska & Aksan, 2006).

The Mediating Role of Parental Stress

If children are better able to take on an active role in their self-regulation, one could presume that autonomy-supportive parenting would be easier to maintain because parents may be less burdened by the need to help their child regulate their affect and behaviour. Study 2 found that parental stress played a mediating role in the negative relationship between toddler negative affectivity and parental AS, indicating that toddlers' temperament challenges autonomy-supportive parenting by increasing parental stress. Higher stress levels have been said to exhaust parents' patience and the inner resources required to be autonomy-supportive (Grolnick, 2003). This finding corroborates past research suggesting that parental well-being plays a mediating role in the link between children's temperament and parenting behaviours (Sanson & Rothbart, 1995; Teti & Gelfand, 1991). It appears that parents get stressed out when they have more reactive children. This added burden makes it harder to remain attentive, empathic, and responsive towards their needs all the while going on with daily living. Parents in such circumstances may thus rely on more controlling tactics to feel "in control", take over the situation and "get things done" to get back on track.

The results from Study 2 point to the difficulty in maintaining an autonomy-supportive stance with children who display negative affectivity. The parent-child relationship is at risk of falling into a vicious cycle where difficult temperament elicits more controlling practices (Patterson, 1982). As parents respond with more coercive techniques, children may become more reactive or oppositional, which in turn leads to more negative parental behaviours. Similarly, when parents are more attentive, supportive, and sensitive to their children's cues

and needs, children may learn to respond with greater effortful control, which may in turn promote more of their parents' sensitive parenting behaviours. Nevertheless, given the literature on the impact of lack of sensitivity and more punitive, coercive parenting practices on child outcomes (for a review, see Barber, Stolz & Olsen, 2005), including their impact on internalization (Kochanska & Knaack, 2003; Olson, Bates, Sandy, & Schilling, 2002), it is of utmost importance to help parents maintain AS.

Child Adjustment Problems

While maintaining an autonomy-supportive stance is beneficial for both the parent and the child, a certain level of parental control or monitoring is considered necessary for optimal development (Barber, 1996; Baumrind, 1975; 1983; Steinberg, 2001). For instance, parental control is needed in order to prevent injury or harm in potentially risky situations. However, it could undermine children's autonomy when parents use it unnecessarily and in excess (Grolnick, 2013). There are two types of control practices: positive and negative. Positive control practices are generally viewed as authoritative in nature and include the following: giving rationales, approval, support, and encouragement as well as providing the child with positive feedback (e.g., praise; see Braungart-Rieker, Garwood, & Stifter, 1997; Deci et al., 1994; Grolnick, 2013). Interestingly, meta-analyses have shown that positive control practices tend to be associated with lower levels of disruptive behaviours in children because parents model positive behaviours (Kawabata, Alink, Tseng, Van IJzendoorn, & Crick, 2011; Rothbaum & Weisz, 1994). They are also thought to foster the internalization of parental rules and the willingness to comply with parental requests (Grusec & Kuczynski, 1997). In addition, in a study conducted by Van Zeijl and colleagues (2007) where mothers were taught

positive control practices, they found that the use of these practices was linked to a decrease in children's overactive behaviour.

On the other hand, negative control practices are characterized by being authoritarian in nature. They include practices, such as making threats (e.g., "If you don't put your toys away, you will be punished"), offering bribes for good behaviour (e.g., "I'll give you chocolate if you listen to me"), using power assertion (e.g., "You do it because I said so!"), providing negative as opposed to positive feedback (e.g., "No that's not it. You're doing it wrong!"), giving negative commands (e.g., "I said do it NOW"), using corporal punishment, or other physically controlling behaviours (Braungart-Rieker et al., 1997; Grolnick, 2013). The use of such practices, often labelled as being *controlling*, has been linked to a decrease in children's autonomous self-regulation. Children are forced and/or coerced into having to think, feel, and behave in ways that only the parent approves of (Deci et al., 1994; Soenens & Vansteenkiste, 2010).

Not only do children experience poor outcomes related to such negative controlling tactics (i.e., increase in disruptive behaviour; see meta-analyses by Karreman, Van Tuijl, Van Aken, & Dekovic, 2006; Kawabata et al., 2011) but they also learn to use them when interacting with others (i.e., by imitating what their parents model) in order to get what they want (Bandura, 1977; Bussey & Bandura, 1999). Several studies conducted with ethnically and socioeconomic diverse samples have revealed a distinct association between parents' use of controlling practices and children and adolescents' internalizing problems (Barber, 1996; Barber, Olsen, & Shagle, 1994; Mills & Rubin, 1998; Nelson, Yang, Coyne Olsen, & Hart, 2013; Soenens & Vansteenkiste, 2010). Research on childhood anxiety has closely examined overprotection (vs. autonomy granting) and its influence on the development and maintenance

of childhood anxiety disorders (Gere, Villabø, Torgersen, & Kendall, 2012; McLeod, Wood, & Weisz, 2007). This dimension is usually characterized as "excessive parental regulation of children's activities and routines, encouragement of children's dependence on parents, and instruction to children on how to think or feel" (McLeod et al., 2007, p. 156).

Study 2, like Study 1, was correlational in nature therefore, causal conclusions cannot be made. Although parents who have more temperamentally difficult children may respond with more controlling tactics, it is also possible that parents who are more controlling elicit more negative reactions from their children (Grolnick, 2013). Oppositional behaviour leads to irritability, which evokes control and consequently, sustains noncompliance (Patterson, 1982). This vicious cycle illustrates how parents may be unfortunately exacerbating their child's negative emotionality. Patterson (1982) explained that in order to break this negative cycle, intervention programs should focus on helping all family members learn new approaches to dealing with problems. As mentioned when discussing Study 1, future studies could use experimental designs to allow for causal conclusions. Research examining child temperament and parenting practices would also do well to control for parental traits, such as impulsivity, as parents not only serve as models, but share their genetic makeup with their children. Ideally, twin studies could be used to help disentangle biological and environmental influences on child behavioural tendencies.

Parents' Personal Difficulties: Other Risk Factors for Less Optimal Parenting

Negative control as it relates to parents refers to their attempts at controlling their child's psychological world through various coercive and manipulative tactics, such as shaming, love withdrawal, and manipulations of the attachment bond they hold with their child (Barber, 1996; Schaefer, 1965). Controlling parents are defined as those who are

centered towards their own needs and feelings, and lack an appropriate sense of empathy and perspective-taking needed to appropriately and effectively understand, and react to their children's subjective world (Soenens, Vansteekiste, Duriez, & Goossens, 2006). They intrude on their child's sense of self and volition (Barber, 1996). They are also described as being demanding, achievement-oriented, critical, and strict (Barber & Harmon, 2002; Pomerantz & Eaton, 2001). Given the negative developmental outcomes associated with high incidences of such control (e.g., low self-esteem, depression, and loneliness; e.g., Barber 1996; Barber & Harmon, 2002; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005), it is important to identify what leads parents to resort to more controlling practices instead of autonomy-supportive ones. While the present thesis explored child stressors that might explain this, attention should also be spent on the role of parental resources and personality characteristics within this link, such as personality traits (e.g., perfectionism; Soenens et al., 2005, Soenens et al., 2006), certain psychological difficulties (e.g., separation anxiety; Soenens et al., 2006, depression; Lovejoy, 1991; Lovejoy, Graczyk, O'Hare, & Neuman, 2000), or even personality disorders (e.g., narcissism; Fukushima, Iwasaki, Aoki, & Kikuchi, 2006; borderline personality disorder; Zalewski et al., 2014).

Trying to Maintain AS: The Importance of Social Support

The evidence provided from the studies mentioned above as well as the results from Study 2 point to the need of developing interventions that assist parents in learning how to manage difficulties effectively and how to maintain optimal, autonomy-supportive parenting practices. Moreover, given how negative life events, workload, circumstances, and stress levels fluctuate on a daily basis and how they impact the cognitive resources and emotional availability parents need to maintain AS, the importance of seeking and obtaining support is

crucial. Such pressures decrease the likelihood of supporting children's autonomy and probably increases the odds of acting in a negative, controlling way.

Many suggestions can be given to parents in order to help them employ AS. Firstly, parents should be encouraged to engage in self-care routines (e.g., meditation, exercise) and do activities that bring them pleasure in order to replenish their resources, manage their stress and maintain optimal well-being. Next, seeking external social support to help with children can also be effective in managing daily functions and ease the stress of parenting. Friends, family members, babysitters, and daycare centres can help with child care. Another prevention technique would be to develop programs that aim at teaching parents to identify the challenges they face in parenting and seek the appropriate support (e.g., instrumental or professional help). Parents could also be taught to increase their self-awareness and know when they are most susceptible to using less effective strategies and learn what to do to prevent the use of suboptimal practices.

Concluding Remark

Parenting behaviours are influenced by a wide range of factors and the stressors under which parents function on a daily basis have been shown to make it harder to preserve an autonomy-supportive stance. Since AS been proven to be beneficial for child development, it seems key to study how it may be provided early in children's lives and to help parents in creating and maintaining autonomy-supportive contexts. Exploring AS across various contexts (such as when giving requests) seems essential to help parents and other agents of socialization satisfy children's basic need for autonomy, particularly during the determinant developmental period of toddlerhood.

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