Effectiveness and acceptability beliefs regarding logical consequences and mild punishments

Geneviève A. Mageau[a],[*],[1], Joannie Lessard[a],[1], Joëlle Carpentier[b], Jean-Michel Robichaud[a], Mireille Joussemet[a], Richard Koestner[c]

[a] Université de Montréal, Canada
[b] UQAM, Canada
[c] McGill University, Canada

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ABSTRACT

Using hypothetical scenarios of rule-breaking situations, this study contrasted two behavioral limitation (BLIMIT) strategies that differ in terms of their connection to the transgression-induced problem (logical consequences vs. mild punishments, compared to no BLIMIT). A total of 215 children (*M* age = 10.42) and their mothers rated the effectiveness and acceptability of these strategies, when preceded by different discipline climates (autonomy-supportive [AS] vs. controlling). Mothers rated logical consequences as the most effective and acceptable strategy in both climates and perceived BLIMIT strategies more positively in AS climates. A significant interaction also revealed that all differences between BLIMIT strategies were accentuated in AS climates. Children believed that logical consequences and mild punishments were equally effective and more effective than no BLIMIT, but they rated logical consequences as more acceptable. Children also perceived BLIMIT strategies more positively in AS climates. However, for children, climates did not moderate the effect of BLIMIT strategies.

As primary authority figures, parents are entrusted with the important role of socializing their children. There are two principal goals of socialization: compliance and value internalization. While the internalization of values is crucial for the maintenance of socially acceptable behaviors in the absence of authority figures, compliance is necessary for social skill learning and the prevention of antisocial behaviors (Patterson & Fisher, 2002). While researchers (Baumrind, 2012; Grolnick & Pomerantz, 2009; Grusec & Davidov, 2010) agree that noncoercive authority exertion is an integral part of optimal parenting in the control domain of socialization, exactly what constitutes the optimal way to exert authority after a rule transgression remains unclear. Part of the dilemma is due to the fact that some authority exertion practices seem most effective to obtain compliance (e.g., power assertion), while others are best to promote value internalization (e.g., inductive reasoning, responsiveness; Baumrind, 2012; Grusec & Goodnow, 1994). Given that both compliance and value internalization are desirable socialization goals depending on context, it has been argued that mild punishments (i.e., unpleasant non-physical sanctions; Larzelere, Cox, & Mandara, 2013), paired with inductive reasoning (i.e.,

highlighting the effects of transgression on others) and responsiveness (i.e., being attentive to child feelings and needs), constitute the optimal way for parents to respond to rule transgressions (Baumrind, 2012). Yet, mild punishments have also been linked to negative child outcomes (Gershoff et al., 2010), which suggests that the combination of authority exertion practices presently recommended, and specifically its component that limits child behaviors, may not be optimal for child development. Additional research on alternative behavioral limitation (BLIMIT) strategies is thus imperative to unravel more optimal ones.

The present study began this investigation by examining logical consequences as a new BLIMIT strategy that seems promising for limiting children's behavioral repertoire while preventing the negative outcomes typically linked to mild punishments. Logical consequences refer to behavioral limitations that address the transgression-induced problem and require children to take responsibility for their actions (Ginott, 1965). This BLIMIT strategy was first proposed by Ginott (1965) as part of a parenting workshop that seems effective to induce positive change in school-aged children's behaviors (Joussemet, Mageau, & Koestner, 2014). However, because this workshop includes a

large number of authority exertion practices, the unique impact of logical consequences on child outcomes (perceptions or behaviors) has never been empirically tested. Importantly, this strategy has never been specifically compared to mild punishments, even though mild punishments are currently the recommended way to limit children's behaviors (e.g., Baumrind, 2012).

To determine the relative value of logical consequences and mild punishments, the present study compared these BLIMIT strategies to a no BLIMIT condition using hypothetical scenarios, and tested their impact on school-aged children's and mothers' effectiveness and acceptability beliefs. The no BLIMIT condition was operationalized as repeating the rule following persistent disobedience. Moreover, given that researchers propose that inductive reasoning and responsiveness moderate the impact of punishments (Baumrind, 2012), we crossed the three BLIMIT conditions with two discipline climates, an autonomy-supportive (AS) climate that included rationales and acknowledgement of feelings, two behaviors reflecting reasoning and responsiveness respectively, and a controlling (CTL) climate characterized by guilt-inductions and threats (Koestner, Ryan, Bernieri, & Holt, 1984; Soenens & Vansteenkiste, 2010).

We thus presented all three BLIMIT strategies twice in a counterbalanced order, once after AS verbalizations and once after CTL ones, for a total of six combinations of authority exertion practices. We chose this experimental design because it allowed us to systematically vary different factors that could impact mothers' and children's perceptions (Barter & Renold, 2000). Understanding these factors is important because mothers' beliefs regarding parenting practices indicate their willingness to employ these practices (Hamilton, Spinks, White, Kavanagh, & Walsh, 2016), while children's beliefs predict their compliance and internalization as well as mediate the impact of actual parenting on child outcomes (Darling, Cumsille, & Martínez, 2007; Grusec & Goodnow, 1994; Lansford et al., 2010).

1. BLIMIT strategies

Mild punishments and logical consequences represent two qualitatively different BLIMIT strategies. BLIMIT strategies in turn may be viewed as a subcategory of authority exertion practices that specifically limits children's behavioral repertoire, where parents take advantage of the fact that they have greater control over resources than their children to stop inappropriate behaviors and obtain appropriate ones. While some BLIMIT strategies include harsh and coercive behavioral constraints, neither mild punishments nor logical consequences are applied in a coercive fashion.

1.1. Mild punishments

In the parenting context, mild punishments refer to unpleasant non-physical behavioral constraints or deprivation of privileges, meant to either suppress undesirable behaviors or make children comply with a broken rule (Larzelere et al., 2013). Examples of mild punishments are prohibiting the use of a certain toy, forbidding participation in a given activity, or imposing chores. Usually introduced with sentences such as "*Since you did/didn't do this, you must/can't*" or "*As a punishment/consequence, you need to*", these unpleasant behavioral limitations are typically imposed to make children "mind" so that they will direct their attention to their parent's message and act accordingly (Baumrind, 2012).

Research on mild punishments has mostly focused on their impact on children's behaviors, emotions and motivations. In those specific cases where children refuse to obey, mild punishments imposed shortly after the transgression and paired with inductive reasoning have been shown to be more effective in promoting compliance than relying solely on reasoning or positive reinforcements (Patterson & Fisher, 2002). However, research also suggests that although mild punishments promote compliance, they could prevent internalization of values even

when paired with practices meant to promote this socialization goal (e.g., inductive reasoning). Specifically, mild punishments encourage children to fear parental authority (Kochanska & Thompson, 1997) and to focus more on how to please authority figures than on the values underlying parental requests (Grolnick, 2003). As such, this BLIMIT strategy encourages children to comply but for controlled reasons (e.g., to avoid losing privileges) and not for autonomous ones (e.g., self-endorsed values; Kremer, Smith, & Lawrence, 2010). There is also evidence that some forms of mild punishments (i.e., time outs) are linked to greater child anxiety, while others are not (i.e., taking away privileges; Gershoff et al., 2010). These studies suggest that mild punishments could interfere with internalization as well as have other detrimental effects on child development. Considering these potential pitfalls, identifying alternative BLIMIT strategies is crucial to better support parents in their socialization role.

1.2. Toward an alternative BLIMIT strategy

Grusec and Goodnow (1994) proposed that to promote the internalization of societal rules, authority exertion practices must be perceived as legitimate or acceptable by children. Subsequent research has focused on children's acceptability beliefs regarding verbal influence, coercive practices or parental authority in general; together, these studies provide clues on the characteristics that optimal BLIMIT strategies are likely to have. One factor that has been shown to influence children's perceptions of authority exertion practices is coercion. Specifically, children perceive coercive practices such as love withdrawal and shaming as less acceptable than the use of reasoning (Helwig, To, Wang, Liu, & Yang, 2014). As an additional factor influencing children's perceptions, research anchored in Social Domain Theory (Smetana, 2011) shows that the social domain in which the transgression occurs (i.e., conventional, prudential, moral and personal) influences the degree to which children will perceive their parents' authority as legitimate. It is now well-established that both children and teenagers perceive parental authority as illegitimate when it concerns personal issues and preferences (personal domain) but that legitimacy increases for non-personal concerns, such as another person's rights/welfare (moral domain), the child's own safety/welfare (prudential domain) and contextually determined norms (conventional domain; Smetana, Wong, Ball, & Yau, 2014). Given this research, it seems important to investigate BLIMIT strategies that are non-coercive and in domains other than the personal one.

Of particular interest for the present study, research also suggests that the presence of a logical connection between reasoning, one form of authority exertion, and the transgression-induced problem increases children's acceptability beliefs regarding this strategy. For example, school-aged children perceive reasoning that is related to the transgression's social domain (e.g., discussing the welfare of others following a moral transgression) as more acceptable than reasoning that is unrelated (e.g., discussing social conventions following a moral transgression; Nucci, 1984). Several authors also proposed that a logical connection to the transgression-induced problem is also important when it comes to BLIMIT strategies (Farkas & Grolnick, 2010; Grusec & Goodnow, 1994). Accordingly, the present study focuses on the link between BLIMIT strategies and the transgression-induced problem to distinguish logical consequences from mild punishments.

1.3. Logical consequences

Ginott (1965) argued that parents can increase the link between BLIMIT strategies and the transgression-induced problem by using logical consequences. Logical consequences refer to behavioral limitations that directly address the transgression-induced problem and require children to take responsibility for their actions. Children are typically required to take responsibility by either engaging in active problem-solving (e.g., offer reparation; change their behavior) or by

experiencing the changes that their parent must implement to stop their undesirable behaviors (e.g., when improperly used, loss of the toy/object until it is clear that children will not repeat the harmful behavior; change in schedule to meet time constraints). Introduced with sentences such as "*This occurs, now it is time to*", "*For now, this needs to be*", "*Before this, this needs to happen*", or "*This occurs, now there is no more time to*", logical consequences limit the child's behavioral repertoire, with the goal of solving the transgression-induced problem. Although logical consequences are similar to mild punishments in that they both entail some form of limitation of children's behaviors, there are also important qualitative differences between these two BLIMIT strategies.

1.4. Distinguishing logical consequences from mild punishments

To be considered logical consequences, BLIMIT strategies must aim at addressing the transgression-induced problem. Logical consequences are thus inherently linked to the transgression-induced problem and provide children with valuable information about its nature, its impact on themselves and others, and the necessary steps to take responsibility to solve it. For example, children who need to repair an object that they have broken not only learn about the importance of respecting others' property, but also about the actual consequences of their action for the victim who wishes to reuse this object. By having children either address the transgression-induced problem themselves or experience the logical consequences that come with having the parent address it, logical consequences highlight behavior-outcome contingencies to a greater extent than mild punishments, and in a more experiential way than with other forms of authority exertion strategies. When persistent disobedience occurs, experiences of problem-solving also focus children's attention on the necessities of the situation and on the welfare of others at times when other strategies have failed to prompt children to consider this information (Hoffman, 1983).

In contrast, BLIMIT strategies become punishments when their only conceptual link to the problem is their capacity to make the child mind to prevent recurrent transgressions. Such mild punishments are often based on the child's interests (i.e., what the child will most mind losing), the parent's mood (i.e., how much the parent feels the child must "pay") or the severity of a repeated offence (i.e., how important is it to prevent the behavior; Critchley & Sanson, 2006), and thus provide no additional information about the values and principles underlying the parent's rules (Farkas, 2007). Being limited in their informational value, mild punishments could at times even be perceived as irrelevant.

In addition, given that their goal is to make the child mind, mild punishments are also more likely than logical consequences to arouse strong negative emotions in children, which in turn could prevent the child from processing the parental message (e.g., anger, rejection, or fear; Hoffman, 1983). Logical consequences, in contrast, are often unpleasant for children, as problem-solving typically is, but they need not be. For example, logical consequences may be pleasant as long as they successfully address the transgression-induced problem and children take responsibility (e.g., cleaning the living room with fun music). Moreover, logical consequences should arouse less negative emotions in children because with logical consequences parents can remain sensitive to children's difficulties during problem-solving, as well as provide help and guidance when needed.

Given these characteristics, mothers and children should perceive logical consequences as more acceptable and more effective in promoting compliance than punishments or than no BLIMIT. Although mixed forms of BLIMIT strategies undoubtedly exist,[2] the present study began the investigation of logical consequences and mild punishments by comparing the perceived effectiveness and acceptability of

prototypical examples of these strategies. We operationalized mild punishments as taking away different privileges because this form of non-coercive and non-physical punishment has been shown to be unrelated to child negative outcomes (e.g., aggressive or anxious behaviors; Gershoff et al., 2010). Also, to verify that participants actually perceived both logical consequences and mild punishments as limiting children's behavioral repertoire, we included a no BLIMIT condition for comparison purposes. We operationalized this condition as simply repeating the rule following persistent disobedience.

2. Contextualizing logical consequences and mild punishments

Keeping in mind that researchers recommend mild punishments in those instances where inductive reasoning and responsiveness have failed to elicit compliance (Baumrind, 2012), it was important to compare the value of BLIMIT strategies when they were preceded by such optimal discipline climates. To operationalize optimal discipline climates, we relied on decades of research anchored in Self-Determination Theory showing a positive link between AS climates and children's development (Joussemet, Landry, & Koestner, 2008). In disciplinary contexts specifically, AS discipline climates have been operationalized as providing rationales and acknowledging feelings, two behaviors reflecting reasoning and responsiveness respectively (Koestner et al., 1984). However, comparing logical consequences, mild punishments and the no BLIMIT condition when preceded by AS climates could have blurred important distinctions between these BLIMIT strategies. For example, it was possible that the presence of a rationale provides children with sufficient information about the importance of the rules to cancel any advantage that logical consequences could have over mild punishments (interactive effect). To test this interaction, we also compared logical consequences, mild punishments and the no BLIMIT condition when preceded by CTL discipline climates, characterized by externally and internally pressuring behaviors, that is guilt-inducements and threats (Soenens & Vansteenkiste, 2010). Research has repeatedly shown that AS climates promote children's value internalization and well-being, while CTL ones jeopardize children's development (see Joussemet et al., 2008, for a review). Accordingly, mothers and children were expected to view all BLIMIT strategies in a more positive light when preceded by AS climates than by CTL ones. However, the clear contrast between these two climates should facilitate the detection of moderating effects between BLIMIT strategies and climates in the prediction of effectiveness and acceptability beliefs regarding BLIMIT strategies.

3. Actual parenting as a context for mothers' and children's perceptions

Finally, past research shows that perceptions of parenting practices vary across individuals and interpersonal contexts (Darling & Steinberg, 1993; Grusec & Goodnow, 1994), and that individuals who live in a more need-supportive environment are more sensitive to the potential benefits of need-supporting events (e.g., Moller, Deci, & Elliot, 2010). Accordingly and as a secondary objective, we tested whether observed differences between the experimental conditions varied as a function of participating mothers' actual parenting. The two parenting dimensions that we focused on were AS parenting and structure. These dimensions were chosen because they are fundamental for children's development (Aunola & Nurmi, 2005) and directly relevant to the experimental manipulations. They were thus most likely to influence mothers' and children's perceptions.

4. The present research

In sum, the present research used hypothetical scenarios to test the impact of logical consequences, mild punishments and no BLIMIT on mothers' and their school-aged children's effectiveness and

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[2] For example, BLIMIT strategies can be logically linked to the transgression-induced problem and still be imposed to make the child mind. In this case, they would be considered as mild punishments.

acceptability beliefs, and verified if these perceptions varied according to discipline climates. As a secondary goal, we also tested the moderating effect of actual parenting on participants' perceptions. We considered school-aged children from 9 to 12 years old to be the ideal age group for this study because at this age children are at a developmental stage where they can perceive differences between parenting practices (Helwig et al., 2014) and reliably complete self-reports (see Harter, 1985, for more information on the validity of self-reports with this age group). They are also young enough to evaluate parental authority as legitimate in all non-personal domains (Smetana & Asquith, 1994).

4.1. Primary hypotheses

Given that both logical consequences and mild punishments limit children's behavioral repertoire, we expected that mothers and children would perceive these strategies as equally effective to prevent future transgressions and as more effective than no BLIMIT. In addition, participants should perceive both mild punishments and logical consequences as more acceptable than the no BLIMIT condition because these strategies provide greater structure at a time when self-regulation is required but children persist in acting in socially unacceptable ways (Hoffman, 1983). However, we expected that participants would evaluate logical consequences as more acceptable than mild punishments since they have greater informational value.

We could not formulate a definite hypothesis for the moderating effect of discipline climates on how participants would perceive BLIMIT strategies. On one hand, it was possible that because of their greater informational value, participants would perceive logical consequences as more acceptable than mild punishments even when compared in AS climates (additive effects of climates and BLIMIT strategies). However, and in line with Baumrind (2012)'s proposition, it was also possible that differences between mild punishments and logical consequences in terms of acceptability beliefs would be reduced when these BLIMIT strategies were preceded by AS climates, presumably because rationales and acknowledgement of feelings increase mild punishments' informational value. The distinction between mild punishments and logical consequences would then be less salient in AS than in CTL climates (interactive effect of climates and BLIMIT strategies).

4.2. Secondary hypotheses

Exploratory analyses verified if observed differences between BLIMIT strategies varied according to mothers' actual parenting. We hypothesized that children would perceive greater differences between BLIMIT strategies when their mothers provided more optimal parenting (i.e., more AS parenting and structure). We also expected mothers who reported more optimal parenting to be more attuned to differences in BLIMIT strategies as these mothers were likely to be more aware of the varying impacts of parenting strategies.

5. Method

5.1. Participants

A total of 215 children (M_{age} = 10.42 years; SD = 1.04) participated in this study (47% boys) and 168 of these children's mothers also participated (aged between 25 and 53 years old; M = 39.61 years; SD = 5.24). Most mothers reported being French Canadians (86.9%); other mothers in the sample reported Arabic (3%), French (2.4%) or Hispanic (1.8%) ancestries. Eighty-three percent of the mothers were either married or living in a common law union, and 82% reported having graduated from CEGEP (i.e., a technical/pre-university institution) or university. Regarding their income (in CAD$), 14% of the families had an annual income below $30,000, 50% earned between $30,000 and $100,000, and 36% earned $100,000 or more. Participants were thus primarily of middle-class socioeconomic status.

Children with participating mothers were similar to those with non-participating ones in terms of their age, family context (i.e., perceived actual AS parenting and structure), and their acceptability and effectiveness beliefs regarding the BLIMIT strategies and the discipline climates. There was however a greater proportion of girls among children with non-participating mothers.

5.2. Procedure

We recruited mothers of children in 4th–6th grade through their children's elementary schools by sending them an information sheet describing the project along with a consent form (approximate N = 1725; 10 participating schools). We then sent questionnaires to each of the 259 mothers who agreed to participate. Mothers completed their questionnaire at home and returned it using a pre-stamped envelope (estimated completion time = 50 min). Children who obtained parental consent completed their questionnaire at school with an experimenter (estimated completion time = 25 min or less).

5.3. Experimental manipulation

We manipulated parental BLIMIT strategies (mild punishments, logical consequences and no BLIMIT) and discipline climates (AS vs. CTL) using hypothetical scenarios that depicted mother-child interactions in rule-breaking situations, using comic strip formats. All scenarios presented transgressions in non-personal social domains: child refuses to do his/her homework (conventional domain), child refuses to brush his/her teeth (prudential), child damages his/her parent's tools (moral), and child calls his/her sibling names (moral). We manipulated the discipline climate in the first three images of each comic strip by changing how mothers reminded the rule to their child. AS discipline climates were represented by integrating acknowledgements of feelings (e.g., "I see that you'd rather not brush your teeth now that you are already in bed") and rationales (e.g., "It's important to brush your teeth every night in order to have nice white teeth"; Koestner et al., 1984), while the CTL discipline climates were characterized by guilt-inducing comments (e.g., "It's always the same with you… You never listen to me!") and threats (e.g., "If you don't go right away, you'll regret it!"; Soenens & Vansteenkiste, 2010).

We then manipulated the BLIMIT strategy in the last image by changing how mothers reacted to the child's persistent rule transgression. BLIMIT strategies were thus always presented in the same way but they were preceded by different discipline climates. In the mild punishment conditions, mothers punished the child by taking away a privilege that was unrelated to the child's misdeed (e.g., "Since you don't listen, you won't be able to go to your friend's house tomorrow"). In the logical consequence conditions, mothers responded in a way that addressed the problem created by the child's transgression and let the child experience the consequences of his/her behavior (i.e., when the problem was going to bed late because of not wanting to brush teeth, mothers made routine changes to respect bedtime: "With all this time spent discussing teeth brushing, there is no more time for a bedtime story"; when the child was watching television instead of doing his/her homework, the mother turned off the television set; when the child called his/her sibling names, he/she was asked to apologize; when the child damaged his parent's tools, he/she was required to repair them). In the no BLIMIT condition, the last image depicted mothers who repeated the rule again after the child had been ignoring their request for quite some time (e.g., After 15 min, "Victor, we brush our teeth before going to bed").

Crossing the three BLIMIT strategies (mild punishments, logical consequences and no BLIMIT) with the two discipline climates (AS vs. CTL) yielded a 3 × 2 within-subject design with six experimental conditions. To ensure validity, we presented each condition four times, using the four different hypothetical scenarios mentioned above, for a total of 24 stories. Mothers evaluated all stories, presented in a counter-
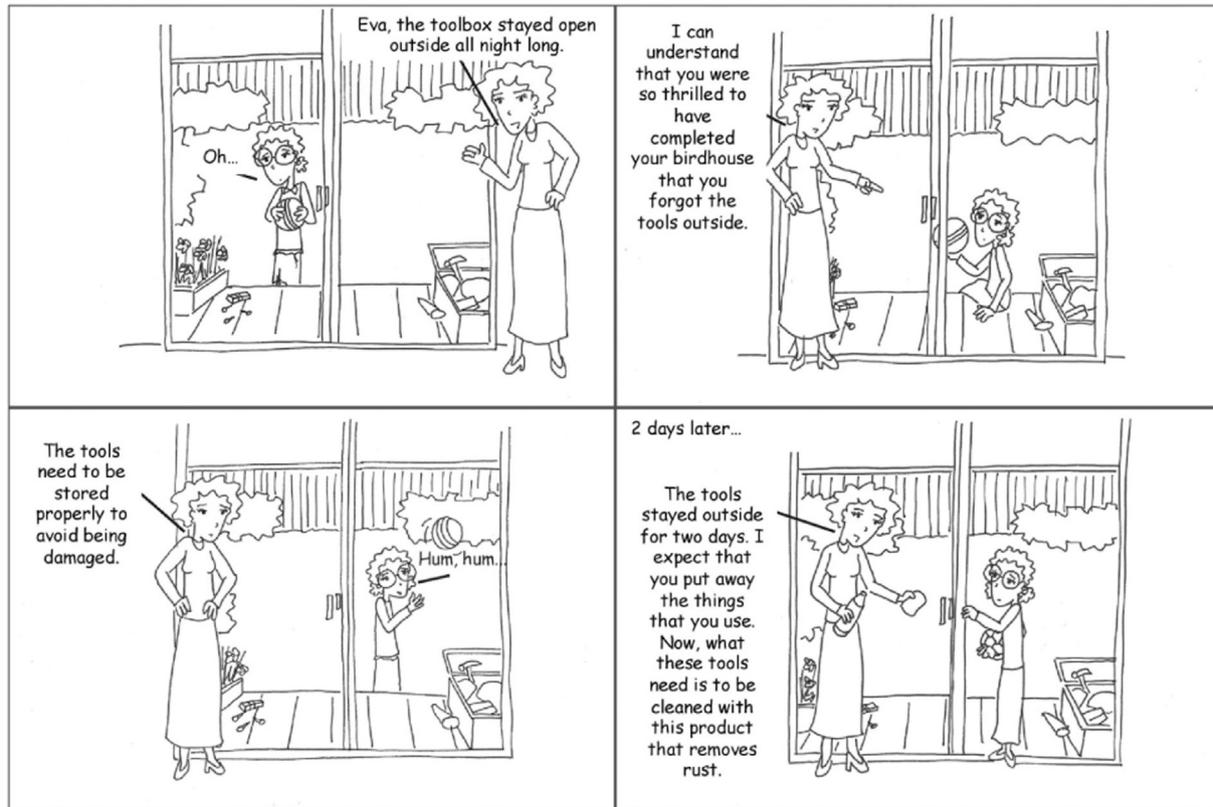
Fig. 1. Example of the comic strips: comic strip for the logical consequence in the AS climate condition in the damaged tools scenario.

balanced order, while children evaluated half of them, also in counter-balanced order, to reduce their questionnaire to a more age-appropriate length (scenarios = teeth brushing and damaged tools). To improve participants' identification with the stories, the child's sex in the comic strips was the same as the participating children's own. After reading each story, we asked participants to answer questions regarding the effectiveness and acceptability of the parental strategies in each comic strip. Fig. 1 presents an example of the comic strips for the damaged tools scenario; Table 1 presents the stories for the other conditions in this scenario.

5.3.1. Pilot study

We conducted a pilot study to verify that stories involving logical consequences were perceived as more logical than stories involving mild punishments. Specifically, we asked a convenience sample of 70 undergraduate students to rate the extent to which each BLIMIT strategy could be considered to be logical in each scenario. Paired t-tests confirmed that logical consequences are indeed perceived as more logical, $t(65) = 10.08$, $p < 0.001$.

5.4. Dependent variables

5.4.1. Perceived effectiveness in preventing future transgression

Mothers and children evaluated the strategies' effectiveness by indicating the extent to which they would ensure child compliance in the future. Mothers rated the following statement using a 5-point scale (1 = *Little or not effective* to 5 = *Very effective*): "While thinking about the comic strip, please indicate the extent to which you believe that the mother's behavior will be effective in preventing this situation from repeating itself", while children rated the following statement using a 4-point scale (1 = *Not at all true for me* to 4 = *Really true for me*): "If my mother acted this way with me…. I would brush my teeth next time".

Reliability coefficients for mothers' ratings, computed from the four hypothetical scenarios in each condition, varied between 0.79 and 0.89 across the six conditions, while correlations for children's ratings, computed from the two hypothetical scenarios in each condition, varied between 0.76 and 0.88 across the six conditions.

5.4.2. Perceived acceptability

To evaluate the strategies' acceptability, mothers rated the following statement using a 5-point scale (1 = *Unacceptable* to 5 = *Totally acceptable*): "While thinking about the comic strip, please indicate the extent to which you find that the mother's behavior was acceptable", while children rated the following statement using a 4-point scale (1 = *Not okay* to 4 = *Totally okay*): "According to you, what the mother said and did in the comic strip was okay". Reliability coefficients for mothers' ratings varied between 0.78 and 0.92, while correlations for children's ratings varied between 0.57 and 0.80.

5.5. Trait measures

Mothers and children rated participating mothers' actual AS parenting and structure to control for potential perceptual biases due to family context. We included participants' own reports of these variables in the analyses predicting their perceptions of the experimental conditions.

5.5.1. Actual AS parenting

Mothers reported on their own AS parenting using the 10-item Parenting Attitude Scale (Gurland & Grolnick, 2005), which assesses the extent to which parents tend to support their children's autonomy. Mothers rated each item on a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). A sample item is "I encourage my child to give his/her opinions, even if we might disagree". In this study, the internal

Table 1
Stories for Scenario 1: Eva borrowed her parents' tools to build a birdhouse.

Condition	Story
Logical consequence in AS climate	This story is depicted in Fig. 1's comic strip.
Mild punishment in AS climate	Image 1- Mother: Eva, the toolbox stayed open outside all night long.
	Child: Oh…
	Image 2- Mother: I understand that you were so thrilled to have completed your birdhouse that you forgot the tools outside.
	Image 3- Mother: The tools need to be stored properly to avoid being damaged.
	Child: Hum, hum…
	Image 4- 2 days later…
	Mother: The tools stayed outside for two days. I expect that you put away the things that you use. Since you're not being careful, you can't go out tonight.
No BLIMIT in AS climate	Image 1- Mother: Eva, the toolbox stayed open outside all night long.
	Child: Oh…
	Image 2- Mother: I understand that you were so thrilled to have completed your birdhouse that you forgot the tools outside.
	Image 3- Mother: The tools need to be stored properly to avoid being damaged.
	Child: Hum, hum…
	Image 4- 2 days later…
	Mother: The tools stayed outside for two days. I expect that you put away the things that you use.
Logical consequence in CTL climate	Image 1- Mother: Eva, the toolbox stayed open outside all night long.
	Child: Oh…
	Image 2- Mother: If you are unable to pick up your things, I won't lend you anything else!
	Image 3- Mother: You haven't picked up the tools yet? It's impossible to trust you, you always disappoint me! Put them away now!
	Child: Hum, hum…
	Image 4- 2 days later…
	Mother: The tools stayed outside for two days. This is unacceptable! Now, what these tools need is to be cleaned with this product that removes rust.
Mild punishment in CTL climate	Image 1- Mother: Eva, the toolbox stayed open outside all night long.
	Child: Oh…
	Image 2- Mother: If you are unable to pick up your things, I won't lend you anything else!
	Image 3- Mother: You haven't picked up the tools yet? It's impossible to trust you, you always disappoint me! Put them away now!
	Child: Hum, hum…
	Image 4- 2 days later…
	Mother: The tools stayed outside for two days. This is unacceptable! Since you're not being careful, you can't go out tonight!
No BLIMIT in CTL climate	Image 1- Mother: Eva, the toolbox stayed open outside all night long.
	Child: Oh…
	Image 2- Mother: If you are unable to pick up your things, I won't lend you anything else!
	Image 3- Mother: You haven't picked up the tools yet? It's impossible to trust you, you always disappoint me! Put them away now!
	Child: Hum, hum…
	Image 4- 2 days later…
	Mother: The tools stayed outside for two days. This is unacceptable!

consistency was satisfactory, $\alpha = 0.70$.

Using the Perceived Parental Autonomy Support Scale for children (Joussemet et al., 2014; Mageau et al., 2015), children reported their perception of the extent to which their mother supported their autonomy (9 items; e.g., "My mother can put herself in my shoes and understand how I feel") and used controlling strategies (9 reversed items; e.g., "My mother makes me feel guilty to make me do what she wants"). Children rated each statement on a 4-point scale (1 = *Almost never true* to 4 = *Almost always true*). The internal consistency for this study was high, $\alpha = 0.79$.

5.5.2. Actual parental structure

We used the 9-item Structure versus Laxness subscale of the Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993) to obtain self-reports of the extent to which mothers set limits and enforced rules as opposed to being more permissive. We asked mothers to rate how they generally behaved toward their children using 9-point bipolar items, where one pole was anchored with structure items (e.g. "When my child won't do what I ask, I take some other action") and the other with laxness items (e.g. "When my child won't do what I ask, I often let it go or end up doing it myself"). In the present study, the internal consistency was high, $\alpha = 0.80$.

Using the 6-item child version of the Structure versus Laxness subscale of the Parenting Scale, children reported their perception of the extent to which their mother set limits as opposed to being permissive (Joussemet et al., 2014). They rated the items (e.g., "When I do something my mother doesn't like, she often lets it go", recoded item) on a 4-point scale (1 = *Almost never true* to 4 = *Almost always true*). In

this study, two of these six items were unreliable. After deletion of these items, the internal consistency of the 4-item scale was low, $\alpha = 0.54$.

5.6. Plan of analyses

We first conducted a series of four repeated-measures ANOVAs, adjusted for potential deviations of the sphericity assumption, to evaluate mothers' and children's beliefs about the effectiveness and acceptability of BLIMIT strategies, as moderated by discipline climates. Each analysis included two within-subject factors representing the experimental manipulations of BLIMIT strategies (3 levels; mild punishments, logical consequences, no BLIMIT) and discipline climates (2 levels; AS vs. CTL). When repeated-measures ANOVAs were significant, we interpreted bonferroni-adjusted post hoc comparisons.

As exploratory analyses, we also considered the moderating role of actual AS parenting and structure by including participants' own reports of these variables as additional factors in the original analyses. We used the mean scores for actual AS parenting and structure to create high- and low-score groups. We then entered these dichotomous variables as two between-subject factors, creating a series of four mixed-model ANOVAs. When mixed-model ANOVAs were significant, we interpreted Bonferroni-adjusted post hoc comparisons.

6. Results

6.1. Mothers' beliefs

Although there were significant interactions between BLIMIT

strategies and discipline climates when predicting mothers' effectiveness and acceptability beliefs, the general patterns of mean differences between BLIMIT strategies were the same across climates. Starting with effectiveness beliefs and then moving on to acceptability beliefs, we present the main effects of BLIMIT strategies and discipline climates first, followed by their interaction.

6.1.1. Main effect of BLIMIT strategies on mothers' effectiveness beliefs

The main effect of BLIMIT strategies on mothers' effectiveness beliefs was significant and in the expected direction, $F(1.97, 309.80) = 103.03$, $p < 0.001$, $\eta_p^2 = 0.40$. Mothers evaluated logical consequences, $M = 3.24$, $SD = 0.82$, as more effective than mild punishments, $M = 2.68$, $SD = 0.89$, which were perceived as more effective than no BLIMIT, $M = 2.11$, $SD = 0.69$.

6.1.2. Main effect of discipline climates on mothers' effectiveness beliefs

The main effect of discipline climates on mothers' effectiveness beliefs was also significant, $F(1.00, 157.00) = 110.46$, $p < 0.001$, $\eta_p^2 = 0.41$, and revealed that mothers perceived AS climates, $M = 3.00$, $SD = 0.69$, as more effective than CTL ones, $M = 2.35$, $SD = 0.69$.

6.1.3. BLIMIT strategies X discipline climates on mothers' effectiveness beliefs

The significant interaction between BLIMIT strategies and discipline climates on mothers' effectiveness beliefs indicated that differences between mothers' perceptions of BLIMIT strategies differed when strategies were preceded by AS versus CTL climates, $F(1.99, 312.77) = 8.09$, $p < 0.001$, $\eta_p^2 = 0.05$. However, contrary to Baumrind (2012)'s proposition, simple effects revealed that differences in effectiveness ratings between BLIMIT strategies were not reduced in AS climates; rather, they were accentuated in such climates compared to CTL ones (AS climates, $F(1.99, 319.91) = 94.88$, $p < 0.001$, $\eta_p^2 = 0.37$; CTL climates, $F(1.97, 316.67) = 66.49$, $p < 0.001$, $\eta_p^2 = 0.29$). Thus, mirroring the main effect, mothers believed that, in both discipline climates, logical consequences (AS climates, $M = 3.63$, $SD = 0.97$; CTL climates, $M = 2.83$, $SD = 0.95$) were significantly more effective than mild punishments (AS climates, $M = 3.03$, $SD = 1.00$; CTL climates, $M = 2.34$, $SD = 0.98$), which were perceived as significantly more effective than no BLIMIT (AS climates, $M = 2.35$, $SD = 0.96$; CTL climates, $M = 1.89$, $SD = 0.79$). All observed differences were however larger in AS than in CTL climates (see Fig. 2).
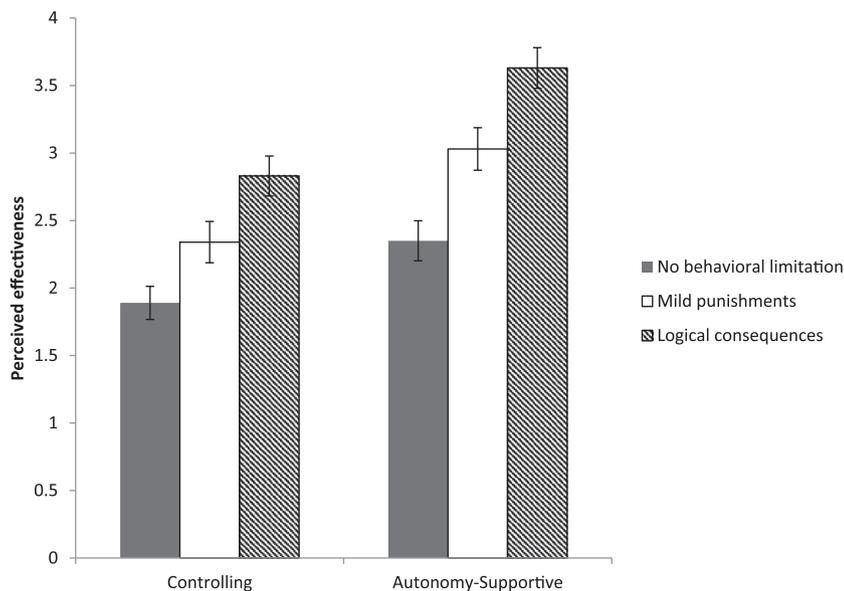
6.1.4. Main effect of BLIMIT strategies on mothers' acceptability beliefs

The main effect of BLIMIT strategies on mothers' acceptability beliefs was significant and in the expected direction, $F(1.87, 291.36) = 66.19$, $p < 0.001$, $\eta_p^2 = 0.30$. Mothers perceived logical consequences, $M = 3.53$, $SD = 0.64$, as significantly more acceptable than both mild punishments, $M = 3.01$, $SD = 0.75$, and no BLIMIT, $M = 2.86$, $SD = 0.68$, while they perceived no difference in acceptability between these two latter conditions.

6.1.5. Main effect of discipline climates on mothers' acceptability beliefs

The main effect of discipline climates on mothers' acceptability beliefs was also significant, $F(1.00, 156.00) = 265.49$, $p < 0.001$, $\eta_p^2 = 0.63$, and revealed that mothers perceived AS climates, $M = 3.66$, $SD = 0.71$, as more acceptable than CTL ones, $M = 2.60$, $SD = 0.65$.

6.1.6. BLIMIT strategies X discipline climates on mothers' acceptability beliefs

The significant interaction between BLIMIT strategies and discipline climates on mothers' acceptability beliefs indicated that differences between mothers' perceptions of BLIMIT strategies differed when strategies were preceded by AS versus CTL climates, $F(1.98, 309.03) = 4.49$, $p = 0.012$, $\eta_p^2 = 0.03$. Again, simple effects revealed that differences in acceptability ratings between BLIMIT strategies were accentuated in AS climates compared to CTL ones (AS climates, $F(1.82, 292.26) = 55.08$, $p < 0.001$, $\eta_p^2 = 0.26$; CTL climates, $F(2.00, 321.65) = 41.22$, $p < 0.001$, $\eta_p^2 = 0.20$), which was contrary to Baumrind (2012)'s proposition. Thus, mirroring the main effect, mothers believed that, in both discipline climates, logical consequences (AS climates, $M = 4.11$, $SD = 0.78$; CTL climates, $M = 2.94$, $SD = 0.85$) were significantly more acceptable than both mild punishments (AS climates, $M = 3.50$, $SD = 0.94$; CTL climates, $M = 2.51$, $SD = 0.81$) and no BLIMIT (AS climates, $M = 3.35$, $SD = 0.99$; CTL climates, $M = 2.36$, $SD = 0.77$). These two latter strategies did not differ from each other. Once again, all observed differences were larger in AS than in CTL climates (see Fig. 3).

6.2. Children's beliefs

There was no significant interaction between BLIMIT strategies and discipline climates when predicting children's effectiveness, $F(2.00, 391.81) = 2.26$, $p = 0.11$, or acceptability beliefs, $F(1.95, 339.92) = 1.77$, $p = 0.17$. The differences between BLIMIT strategies were thus
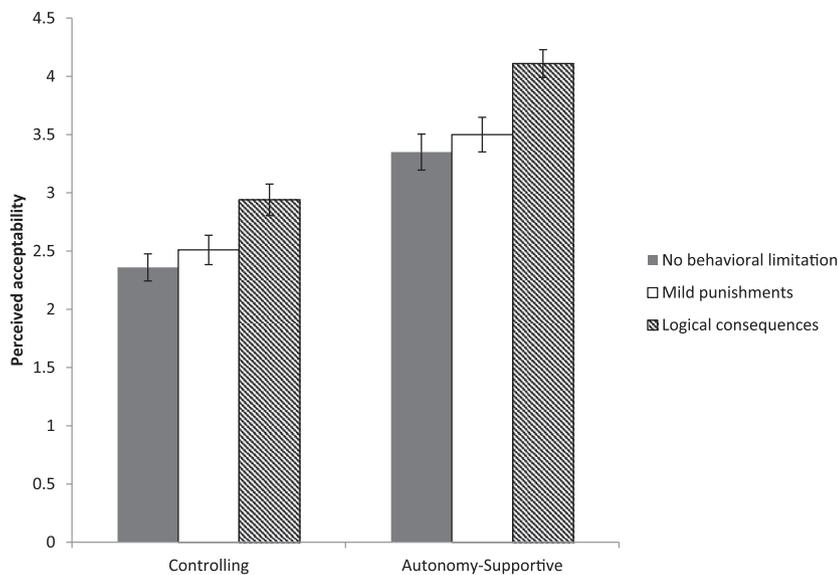

Fig. 2. Mothers' perceived effectiveness of the behavioral limitation strategies depending on the discipline climate.

Fig. 3. Mothers' perceived acceptability of the behavioral limitation strategies depending on the discipline climate.

similar, whether BLIMIT strategies were preceded by AS or CTL climates. We present the main effects for BLIMIT strategies and discipline climates predicting effectiveness beliefs first, followed by those predicting acceptability beliefs.

6.2.1. Main effect of BLIMIT strategies on children's effectiveness beliefs

There was a significant main effect of the BLIMIT strategies on children's effectiveness beliefs, $F(1.94, 380.88) = 7.43$, $p = 0.001$, $\eta_p^2 = 0.04$. Children rated both BLIMIT strategies (i.e., logical consequences, $M = 3.19$, $SD = 0.90$, and mild punishments, $M = 3.25$, $SD = 0.93$) as more effective than no BLIMIT, $M = 3.10$, $SD = 0.89$, although the mean difference between logical consequences and no BLIMIT was marginally significant at $p = 0.056$. Interestingly, children's effectiveness ratings of logical consequences did not differ from those of mild punishments, $p = 0.344$.

6.2.2. Main effect of discipline climates on children's effectiveness beliefs

The distinction between AS and CTL discipline climates was clear for children in terms of effectiveness, $F(1, 196) = 6.76$, $p = 0.010$, $\eta_p^2 = 0.03$. Children rated the strategies as more effective when they were preceded by AS climates, $M = 3.22$, $SD = 0.86$, compared to CTL ones, $M = 3.14$, $SD = 0.91$.

6.2.3. Main effect of BLIMIT strategies on children's acceptability beliefs

There was a significant main effect of the BLIMIT strategies on children's acceptability beliefs, $F(1.97, 341.98) = 4.72$, $p = 0.010$, $\eta_p^2 = 0.03$. Children believed that logical consequences, $M = 2.91$, $SD = 0.66$, were more acceptable than mild punishments, $M = 2.75$, $SD = 0.74$. However, neither of these means is significantly different from the no BLIMIT condition, $M = 2.80$, $SD = 0.69$.

6.2.4. Main effect of discipline climates on children's acceptability beliefs

The main effect of discipline climates on children's acceptability beliefs was also significant, $F(1, 174) = 71.20$, $p < 0.001$, $\eta_p^2 = 0.29$. Specifically, children rated the strategies as more acceptable when they were preceded by AS climates, $M = 3.05$, $SD = 0.60$, compared to controlling ones, $M = 2.59$, $SD = 0.75$.

6.3. Moderating effects of actual parenting on mothers' and children's beliefs

Mixed-model ANOVAs including BLIMIT strategies and discipline climates as within-subject factors and actual AS parenting and structure as between-subjects factors revealed three two-way interactions that involved BLIMIT strategies and either actual AS parenting or structure. Four- and three-way interactions were not significant. Specifically, maternal self-reports of both AS parenting, $F(1.97, 299.10) = 3.65$, $p = 0.028$, $\eta_p^2 = 0.02$, and structure, $F(1.97, 299.10) = 3.23$, $p = 0.042$, $\eta_p^2 = 0.02$, moderated mothers' effectiveness beliefs, while only self-reports of AS parenting moderated mothers' acceptability beliefs, $F(1.89, 285.58) = 6.87$, $p = 0.002$, $\eta_p^2 = 0.04$.

These results first showed that low and high AS mothers, and low and high structuring mothers, ranked the three BLIMIT strategies in the same order of effectiveness as observed in the main analyses. However, the differences between logical consequences and the two other conditions were accentuated for high AS mothers, while all observed differences were accentuated for high structuring mothers (see Tables 2 and 3, respectively). For mothers' acceptability beliefs, the same pattern of results as the one observed in the main analyses was found but only for mothers high in self-reported AS parenting. High AS mothers perceived logical consequences as more acceptable than the other two conditions, which did not differ from each other. In contrast, low AS mothers rated logical consequences as more acceptable than the two other strategies, but they also rated mild punishments as more acceptable than no BLIMIT (see Table 2).

We observed no similar interaction for children, suggesting that the way they perceived their mothers' actual AS parenting and structure did not moderate their perceptions of depicted BLIMIT strategies. All reported findings remained significant when we entered children's perceptions of their own mothers' AS parenting and structure in the model. Moreover, the marginally significant mean difference between children's effectiveness ratings of logical consequences and the no BLIMIT condition (i.e., logical consequences > no BLIMIT) became significant at $p = 0.043$.

Table 2

Means (SD) of mothers' perceived effectiveness and acceptability of BLIMIT strategies depending on self-reported actual AS parenting.

	No BLIMIT	Mild punishments	Logical consequences
Perceived effectiveness			
Low actual AS	2.16 (0.68)$_a$	2.86 (0.90)$_b$	3.23 (0.80)$_c$
High actual AS	2.09 (0.68)$_a$	2.51 (0.87)$_b$	3.27 (0.83)$_c$
Perceived acceptability			
Low actual AS	2.80 (0.74)$_a$	3.16 (0.75)$_b$	3.53 (0.66)$_c$
High actual AS	2.94 (0.62)$_a$	2.87 (0.74)$_a$	3.54 (0.61)$_b$

Note. For each row, means with different subscripts differ significantly at $p < 0.05$.

Table 3
Mean (SD) of mothers' perceived effectiveness of BLIMIT strategies depending on self-reported actual structure.

Perceived effectiveness			
	No BLIMIT	Mild punishments	Logical consequences
Low structure	2.24 (0.66)$_a$	2.64 (0.90)$_b$	3.18 (0.83)$_c$
High structure	2.04 (0.69)$_a$	2.73 (0.91)$_b$	3.32 (0.80)$_c$

Note. For each row, means with different subscripts differ significantly at $p < 0.05$.

7. Discussion

Overall, the effects of BLIMIT strategies and discipline climates on perceived effectiveness and acceptability were similar for mothers and children, albeit with some differences. Mothers rated logical consequences as the most effective BLIMIT strategy for preventing future transgressions, and rated no BLIMIT as least effective. They also rated logical consequences as more acceptable than mild punishments and no BLIMIT. We observed these effects in both discipline climates despite a significant interaction between BLIMIT strategies and climates. This interaction revealed that all observed differences between BLIMIT strategies were accentuated when they were preceded by AS climates compared to CTL ones. Moreover, mothers perceived all BLIMIT strategies more positively in AS climates compared to CTL ones, again despite the interaction.

Children believed that logical consequences and mild punishments were equally effective in preventing transgressions, and that both strategies were more effective than no BLIMIT. However, children rated logical consequences as more acceptable than mild punishments, but no significant difference was found between these two BLIMIT strategies and the no BLIMIT condition. Like mothers, children perceived BLIMIT strategies more positively in AS climates compared to CTL ones. However, for children, the effects of BLIMIT strategies and discipline climates were additive as differences between BLIMIT strategies were constant across climates.

Finally, exploratory analyses showed that these patterns of mean differences were generally observed for all participants, although mothers' reports of their own optimal parenting (i.e., high AS parenting or structure) sometimes accentuated the observed differences between BLIMIT strategies. There was also one instance where the patterns of mean differences in mothers' ratings differed across high and low AS mothers. Specifically, while high AS mothers perceived mild punishments and no BLIMIT as equally acceptable, low AS mothers perceived mild punishments as more acceptable than no BLIMIT. It thus seems that participating mothers' own parenting can influence the extent to which they are attuned to differences in BLIMIT strategies.

Although the impact of BLIMIT strategies on children's subsequent behaviors remains to be tested, the main findings of the present study clearly show that the nature of BLIMIT strategies and discipline climates influence mothers' and children's perceptions of BLIMIT strategies. Understanding mothers' and children's perceptions of BLIMIT strategies is crucial if we consider that these beliefs partly determine mothers' willingness to use these BLIMIT strategies (Hamilton et al., 2016) and children's reactions to these strategies (e.g., Lansford et al., 2010). By providing a better understanding of mothers and children's perceptions of BLIMIT strategies, this study thus greatly contributes to the parenting literature.

7.1. Theoretical implications

7.1.1. BLIMIT strategies

As a first theoretical contribution, this study shows that, in rule-breaking situations pertaining to non-personal domains, both mothers and children believe that limiting children's behaviors (through mild punishments or logical consequences) should yield more compliance than relying solely on repeating the rule without behavioral limitation (no BLIMIT). Many researchers have underlined the importance of rule-enforcement, suggesting that behavioral limitations provide children with valuable information about the importance of the broken rule and the parent's willingness to exert authority (Baumrind, 2012; Grolnick & Pomerantz, 2009). This study is the first to provide direct evidence that children evaluate parents' use of BLIMIT strategies to adjust their conscious intentions regarding compliance. This has important implications for the parent-child relationship. Indeed, one can speculate that witnessing low compliance intentions in children could encourage some parents to make internal attributions for children's transgressions (e.g., lack of respect). Internal attributions, in turn, have been linked to more coercive parenting (Critchley & Sanson, 2006). By highlighting the role of behavioral limitations in establishing parental authority, this study should help parents understand their own impact on their child's compliance intentions.

As another important contribution, the present study reveals that the distinction between logical consequences and mild punishments is relevant to predict mothers' and children's effectiveness and acceptability beliefs regarding BLIMIT strategies. Looking at effectiveness ratings, mothers reported that logical consequences were more effective than mild punishments for preventing future transgressions, whereas children rather believed that logical consequences were as effective as mild punishments. It is possible that mothers are more prone to consider children's likely emotions when evaluating the effectiveness of behavioral limitations, whereas children may focus primarily on what they will be required to do or what they will lose, which then puts logical consequences and mild punishments on equal footing in terms of effectiveness. Despite the difference in mothers' and child's ratings, results clearly suggest that one can be optimistic about the potential effectiveness of logical consequences.

Regarding acceptability beliefs, both mothers and children agreed that logical consequences were more acceptable than mild punishments. Higher acceptability beliefs, in turn, should promote value internalization in children (Grusec & Goodnow, 1994) and mothers' willingness to use these BLIMIT strategies (Hamilton et al., 2016). Examining the nature of logical consequences and mild punishments, it seems likely that taking action in a way that requires children to take responsibility for their behaviors instead of making children mind increases the informational value of BLIMIT strategies and hence, their acceptability. In their influential review, Grusec and Goodnow (1994) stressed the importance of investigating the factors that influence acceptability beliefs regarding BLIMIT strategies. While numerous studies examined the impact of social domains on the legitimacy of parental authority (Smetana, 2011), relatively less is known about the characteristics of non-coercive BLIMIT strategies that can make them more acceptable in high-legitimacy situations. The present study contributes to this literature by suggesting that the characteristics of logical consequences could constitute distinctive features of optimal BLIMIT strategies.

7.1.2. BLIMIT strategies as moderated by discipline climates

The importance of considering the nature of BLIMIT strategies is further supported by the fact that both mothers and children perceived logical consequences as more acceptable than mild punishments in all climates, despite the interaction obtained with maternal ratings. This interaction in turn revealed that discipline climates only accentuated all observed differences between BLIMIT strategies in AS climates compared to CTL ones. Thus, contrary to past propositions (Baumrind, 2012), mild punishments were not as acceptable as logical consequences when they were preceded by AS climates, which included behaviors akin to reasoning and responsiveness (i.e., rationales and acknowledgement of feelings). This suggests that pairing mild punishments with rationales is not sufficient to increase the informational value of BLIMIT strategies. On the contrary, using logical consequences instead of mild punishments seems to increase the informational value

of behavioral limitation over and above what rationales provide. The fact that logical consequences were still perceived as more acceptable than mild punishments in AS climates is particularly noteworthy because the positive valence of AS climates was made salient to participants through the use of highly CTL behaviors as comparison conditions (i.e., guilt-inductions and threats as opposed to less CTL strategies such as orders or warnings).

7.1.3. Discipline climates

This is not to say, however, that discipline climates do not influence participants' perceptions of BLIMIT strategies. Main effects show that both mothers and children perceived all BLIMIT strategies as more acceptable when they were preceded by AS climates than by CTL ones. Yet, because AS climates improved the perception of *all* BLIMIT strategies, significant differences between these strategies were still observed in AS climates. Taken together, these findings suggest the importance of considering both the nature of BLIMIT strategies and the discipline climate in which they occur, as both yield significant and complementary effects (additive for children; interactive with accentuated differences for mothers).

7.1.4. Actual parenting on effectiveness and acceptability beliefs

Finally, exploratory analyses suggest that mothers' own parenting style may influence their perceptions of BLIMIT strategies. For instance, while all mothers thought that logical consequences were more effective than mild punishments, these significant disparities were slightly accentuated for mothers reporting high AS parenting and structure. Similarly, high AS mothers perceived greater acceptability disparities between logical consequences and mild punishments than low AS ones. It thus seems that mothers who report using more optimal parental strategies (high self-reported AS parenting or structure) are more aware of the potential benefits of logical consequences compared to mild punishments.

In addition, only mothers who reported being low in AS parenting perceived the no BLIMIT condition as significantly less acceptable than mild punishments while highly AS mothers did not. It is possible that no BLIMIT is more at odds with the values of low AS mothers who may value prompt obedience to a greater extent. One should note however that differences in perceptions as a function of mothers' self-reported parental practices were not systematic, thereby limiting their interpretation. Given that we did not observe similar interactions with children's ratings, future research is needed to replicate these results.

7.2. Strengths and limitations

The experimental design of this study allowed for direct comparisons of BLIMIT strategies, which constitutes an important strength. In addition, although we did not gather additional information on the validity of the scenarios from the actual participants, a pilot study using a convenience sample confirmed that scenarios depicting logical consequences were more logical than scenarios presenting punishments. Also, and as recommended by recent reviews on experimental vignette methodology (Aguinis & Bradley, 2014), we based the scenarios on a well-established theoretical framework (i.e., Self-Determination Theory) and enhanced their realism by presenting them using comic strips. These procedures together with the pilot study increase our confidence in the validity of our experimental manipulations. Using hypothetical scenarios can nevertheless limit the generalizability of the findings. Specifically, although children have been shown to respond similarly whether they evaluate hypothetical scenarios or their own parents (McMurtry, Chambers, McGrath, & Asp, 2010), mothers and children could perceive BLIMIT strategies differently when they observe these strategies in other families than when they observe them in their own life. In addition, although mothers' acceptability and effectiveness beliefs are likely to predict behavioral intentions, and in turn subsequent strategy use (Hamilton et al., 2016; Oh & Bayer, 2017),

several obstacles may prevent the implementation of optimal parental strategies (e.g., stress, lack of energy, challenging child; Grolnick, 2003). Future research is thus needed to test if differences in effectiveness and acceptability beliefs actually translate into corresponding behaviors.

Other limitations that could potentially reduce generalizability include the fact that mothers in this sample were well-educated and that our response rate was low. Other groups of mothers or mothers who chose not to participate could have perceived the same BLIMIT strategies differently. We also investigated BLIMIT strategies for rules in non-personal domains only (Smetana, 2011). Future research could examine how effectiveness and acceptability beliefs regarding BLIMIT strategies vary across social domains. In light of past findings, we would expect behavioral limitations to be least acceptable in the personal domain. Moreover, child reports of actual maternal structure had less than satisfactory internal consistency. This could be due to the fact that the child version of this scale did not include bipolar items, contrary to the mothers' version (Joussemet et al., 2014). It is possible that the meaning of structure items is clearer when we pair these items with permissive ones. Finally, we compared logical consequences and mild punishments on a limited set of dependent variables. Future research should distinguish between controlled and autonomous forms of compliance as well as examine the impact of BLIMIT strategies on other variables implicated in the socialization process, such as emotions, need satisfaction, and perceived parental intentions.

7.3. Practical implications

From a practical perspective, this research constitutes a valuable contribution to the parenting literature because it questions the widely accepted proposition that mild punishments are the optimal BLIMIT strategy. As a replacement for mild punishments, this study points to logical consequences as a new and promising approach to behavioral limitation in non-personal domains. Both mothers and children perceived logical consequences as more acceptable and as at least as effective as mild punishments. These beliefs, in turn, are likely to encourage mothers to use logical consequences, and children to react positively to these BLIMIT strategies. Although additional research is needed to examine the specific impact of logical consequences on children's actual behaviors, past research has shown that teaching logical consequences along with other authority exertion practices helps reduce children's mental health problems (Joussemet et al., 2014).

In addition, by showing a positive effect of AS climates on mothers' and children's effectiveness beliefs, this study suggests that AS behaviors could be beneficial even in rule-breaking situations. Numerous studies have shown that AS behaviors are associated with more positive child outcomes whether parents are playing with their children, introducing them to uninteresting task or setting limits (see Joussemet et al., 2008, for a review). The present results suggest that positive outcomes are also likely to occur when parents remind/enforce the rules in a more AS way. Future research is now needed to test AS climates' actual effectiveness in preventing child transgressions in real life situations.

8. Conclusion

In sum, whether to limit children's behaviors or not, and how to do so, are difficult decisions that parents are constantly making. The strategy that is currently recommended to limit children's behaviors is mild punishments. Unfortunately, this BLIMIT strategy is far from being optimal as it may arouse negative feelings that can interfere with the internalization process (Gershoff et al., 2010). This study offers logical consequences as a promising alternative approach to behavioral limitation. Future research is now needed to determine if logical consequences should become the new recommended BLIMIT strategy.

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