

Journal of Applied Psychology

The Unintended Consequences of Maternity Leaves: How Agency Interventions Mitigate the Negative Effects of Longer Legislated Maternity Leaves

Ivona Hideg, Anja Krstic, Raymond N. C. Trau, and Tanya Zarina

Online First Publication, June 7, 2018. <http://dx.doi.org/10.1037/apl0000327>

CITATION

Hideg, I., Krstic, A., Trau, R. N. C., & Zarina, T. (2018, June 7). The Unintended Consequences of Maternity Leaves: How Agency Interventions Mitigate the Negative Effects of Longer Legislated Maternity Leaves. *Journal of Applied Psychology*. Advance online publication. <http://dx.doi.org/10.1037/apl0000327>

RESEARCH REPORT

The Unintended Consequences of Maternity Leaves: How Agency Interventions Mitigate the Negative Effects of Longer Legislated Maternity Leaves

Ivona Hideg and Anja Krstic
Wilfrid Laurier University

Raymond N. C. Trau
RMIT University

Tanya Zarina
Toronto, Ontario, Canada

To support women in the workplace, longer legislated maternity leaves have been encouraged in Scandinavian countries and recently in Canada. Yet, past research shows that longer legislated maternity leaves (i.e., 1 year and longer) may unintentionally harm women's career progress. To address this issue, we first sought to identify one potential mechanism underlying negative effects of longer legislated maternity leaves: others' lower perceptions of women's agency. Second, we utilize this knowledge to test interventions that boost others' perceptions of women's agency and thus mitigate negative effects of longer legislated maternity leaves. We test our hypotheses in three studies in the context of Canadian maternity leave policies. Specifically, in Study 1, we found that others' lower perceptions of women's agency mediated the negative effects of a longer legislated maternity leave, that is, 1 year (vs. shorter, i.e., 1 month maternity leave) on job commitment. In Study 2, we found that providing information about a woman's agency mitigates the unintended negative effects of a longer legislated maternity leave on job commitment and hireability. In Study 3, we showed that use of a corporate program that enables women to stay in touch with the workplace while on maternity leave (compared to conditions in which no such program was offered; a program was offered but not used by the applicant; and the program was offered, but there was no information about its usage by the applicant) enhances agency perceptions and perceptions of job commitment and hireability. Implications for theory and practice are discussed.

Keywords: maternity leave, agency, job commitment, hireability, gender

Many countries worldwide implement maternity leave policies with one of the salient differentiating features being the length of time allocated. In recent times, there has been a trend of legislating longer maternity leaves in many countries. For example, in Canada in a recent federal government budget, an extension from 12 to 18

months of parental leave was announced (Alini, 2017; Andressen, 2017). This extension is similar to many Scandinavian countries' policies, which have been legislating longer maternity leaves at the national level (Evertsson & Duvander, 2011). At the same time, a large body of research in the field of economics suggests that

Ivona Hideg and Anja Krstic, Lazaridis School of Business and Economics, Wilfrid Laurier University; Raymond N. C. Trau, School of Management, RMIT University; Tanya Zarina, Independent Practice, Toronto, Ontario, Canada.

We thank Marcus Butts, Eden King, Ji-A Min, and Winny Shen for their helpful comments on previous versions of this article and Yujie (Jessie) Zhan for advice on statistical analyses. We also thank the participants of seminar series at the Católica Lisbon School of Business and Economics, the Bloch School of Management at the University of Missouri—Kansas City, and the Rotman School of Management at the University of Toronto for their feedback. Finally, we also thank the participants of the Diversity Publishing Workshop organized by the Gender and Diversity in Organizations division at the Academy of Management in 2014 and the Breaking

Bias: Leadership Excellence and Gender in Organizations Conference at Purdue University in 2018 for their developmental feedback. A version of this article was presented at the annual meeting of the Academy of Management in 2015. This research was supported in part by the following research grants and fellowships awarded to the first author: the Social Sciences and Humanities Research Council of Canada Insight Grant (435-2014-1147), Early Researcher Award from the Ontario Ministry of Research, Innovation and Science (ER15-11-169), Laurier Early Researcher Award, and International Visiting Fellowship from the RMIT University at Melbourne.

Correspondence concerning this article should be addressed to Ivona Hideg, Lazaridis School of Business and Economics, Wilfrid Laurier University, 75 University Avenue West, Waterloo, ON, Canada N2L 3C5. E-mail: ihideg@wlu.ca

longer legislated maternity leaves (usually defined as 1 year and longer) in developed economies where leaves also entail paid provisions (although the exact level of payment varies by each country) can undermine women's career progression (see Rossin-Slater, 2017, for a review). For example, this past research shows that longer legislated maternity leaves are related to reduced wages (Lequien, 2012; Ruhm, 1998) and lower access to higher level positions and other career advancements (Blau & Kahn, 2013; Olivetti & Petrongolo, 2017). This is problematic for governments, organizations, and society at large, as it suggests that well-intentioned policies of longer maternity leaves may in turn backfire and hurt women's careers. As such, finding ways to combat the negative effects of longer legislated maternity leaves is of ultimate importance for helping women's career progression.

In this article, we first seek to identify one potential mechanism that underlies negative effects of longer legislated maternity leaves; second, we seek to utilize that knowledge to create and test interventions that can help organizations and women mitigate these negative consequences. Past research has mostly examined main effects of longer legislated maternity leaves without identifying underlying mechanisms, which is a crucial aspect for finding ways to mitigate negative effects of longer legislated maternity leaves. By integrating role congruity theory (Eagly & Karau, 2002) with signaling theory (Paustian-Underdahl, Halbesleben, Carlson, & Kacmar, 2016; Spence, 1973), we suggest that one potential underlying mechanism for the negative effects of longer legislated maternity leaves may be that they lower perceptions of women's agency. In contrast, shorter leaves may signal a woman's agency by indicating that, despite having a child, the woman is dedicated to her work. Given that perceptions of job commitment are seen as related to success in management positions (Leslie, Manchester, Park, & Mehng, 2012), perceptions of job commitment, in turn, should influence women's access to management positions, that is, hireability. Below, we outline our theoretical logic in more detail and present three studies testing our hypotheses in the context of Canadian legislated maternity leave policies, which are 1 year long and entail paid provisions for the entire duration of the leave through the national's employment insurance program calculated as a percentage of women's previous earnings.

Theoretical Framework: Maternity Leaves and Perceptions of Agency

Role congruity theory asserts that women are seen as less suitable for leadership roles than men because of an incongruence between leadership roles and women's gender roles (Eagly & Karau, 2002). Namely, women are expected to be communal, possessing traditional feminine traits such as warmth and sensitivity to the needs of others (Rudman, Moss-Racusin, Phelan, & Nauts, 2012). By contrast, leaders are expected to be agentic, possessing traditional masculine traits such as career-orientation and dominance (Rudman et al., 2012). This is problematic for women who are aspiring to leadership positions in general, but this may pose a greater challenge for women who take maternity leaves. This is because they may be perceived as particularly lacking in agency (i.e., traits signaling career-orientation, etc.) due to taking time off work and becoming mothers (Heilman & Okimoto, 2007; Morgenroth & Heilman, 2017).

This should be the case especially when a woman takes a longer legislated maternity leave, as longer leaves should confirm women's traditional gender roles and emphasize women's communal traits. On the other hand, taking a shorter maternity leave may signal high career-orientation and dedication, portraying women as highly assertive, independent, and having strong determination. Namely, signaling theory suggests that managers base their judgments of employees' future achievements and behaviors on employees' observable and current behaviors (Paustian-Underdahl et al., 2016; Spence, 1973). In the context of hiring, when future behaviors of an employee are unknown, taking a shorter maternity leave may thus be a particularly strong signal of agency as such an undertaking (i.e., returning early to work after giving birth) can be an exerting task both physically and psychologically. This early return to work may also strongly communicate a woman's dedication and commitment to her job, which is an indicator of career success (Leslie et al., 2012). Thus, we expect that a longer legislated (vs. shorter) maternity leave may lead to lower perceptions of agency and job commitment, and that lower perceptions of agency underlie the relation between a longer legislated maternity leave and job commitment.

Hypothesis 1: A longer legislated (vs. shorter) maternity leave leads to lower perceptions of agency and expected job commitment.

Hypothesis 2: Agency perceptions mediate the effect of a longer legislated (vs. shorter) maternity leave on perceptions of expected job commitment.

Study 1

Method

Participants and procedure. Participants were 93 business undergraduate students (55% women; age: $M = 20.00$ years, $SD = 0.93$; work experience: $M = 2.87$ years, $SD = 1.89$) at a Canadian university who received research course credit in exchange for their participation. They came to a laboratory and were informed that the purpose of the study was to examine how impressions of job applicants are formed at the beginning of the hiring process when minimal information is provided. They were further informed that they would be presented with a job application and that they would need to provide an evaluation of a job applicant. They first reviewed a job advertisement for the position of a marketing manager (see below). Second, they were randomly presented with one of two versions of an internal application for the advertised job: a version in which a female applicant took a 1-year (i.e., *longer legislated*) or a 1-month (i.e., *shorter*) maternity leave. The two versions of the application were identical in every other aspect (see below). Finally, participants completed the measures described below. All studies reported in this article were reviewed and approved by the Institutional Review Board at Wilfrid Laurier University. For Study 1 and 2, the protocol number was 3772 and the title of the study was "Impressions of Job Applicants." For Study 3, the protocol number was 5142 and the title of the study was "Evaluating Job Applicants."

Materials. The job advertisement and application were patterned after materials used in Heilman and Okimoto's, 2008 study.

The job advertisement was for a marketing manager position and included common marketing tasks and a salary range. *The job application* portrayed the applicant as a woman and included information about her education (i.e., an MBA degree), current job duties, some prior managerial experience, high performance evaluation scores, and favorable comments from her current supervisor. In addition, information that the applicant took either a 1-year or a 1-month maternity leave was included in a section that inquired about leaves of absence. A longer legislated maternity leave was 1 year as that was the length employers were legally mandated to provide to their employees at the time of the study (Service Canada, 2016) making it practically relevant as this is a commonly taken leave in Canada. Indeed, in a separate sample of Canadian business undergraduate students ($N = 292$; 38% women), participants were randomly assigned to rate to what degree they believed either a 1-year or a 1-month maternity leave was standard and commonly taken by women in Canada using a 7-point scale. We found that participants perceived 1 year to be standard, but not 1 month as indicated by one-sample t tests showing that the mean for a 1-year leave was higher than the midpoint of the scale, that is, 4 ($M = 5.12$, $SD = 1.61$), $t(143) = 8.33$, $p < .001$, whereas the mean for the 1-month was lower than the midpoint of the scale ($M = 2.03$, $SD = 1.23$), $t(144) = -19.04$, $p < .001$. We operationalized a shorter maternity leave as 1 month because it is likely to some degree to be taken by women in professional jobs (Marshall, 1999), and past research also suggests that maternity leaves less than 3 months tend to be related with more positive outcomes (i.e., no wage penalty and increase in female employment rates; Ruhm, 1998).

Measures. All measures in this article used a 7-point Likert response scale (1 = *strongly disagree*; 7 = *strongly agree*). We measured *agency perceptions* with a 16-item scale from Rudman et al. (2012) (e.g., career-oriented, ambitious; $\alpha = .90$), and expected *job commitment* with a three-item scale from Heilman and Okimoto (2008) (e.g., "If hired, the applicant would be very committed to the company"; $\alpha = .79$). The zero-order correlation between agency perceptions and job commitment was .42. To verify that participants perceived stimuli and manipulations correctly, we asked participants to indicate (a) what type of leave the applicant took using a multiple choice question with the following options: medical leave, maternity leave, and sabbatical leave and (b) the length of the applicant's leave in an open format response; 96% and 89% of participants correctly answered questions 1 and 2, respectively.

Results

Supporting Hypothesis 1, we found that applicants who took a longer legislated leave were perceived as less agentic ($M = 5.24$, $SD = 0.71$) and were expected to be less committed to their job ($M = 4.91$, $SD = 0.98$) than applicants who took a shorter leave, agency: $M = 5.60$, $SD = 0.52$, $t(91) = -2.81$, $p = .006$, $SE = .13$, $d = .58$; job commitment: $M = 5.36$, $SD = 1.12$, $t(91) = -2.05$, $p = .044$, $SE = .22$, $d = .43$. In addition, to provide an estimate of variance accounted for, we computed η^2 , which was .08 for agency and .04 for job commitment. Supporting Hypothesis 2, a bootstrapping procedure with 10,000 samples using PROCESS (Model 4; Hayes, 2013) showed a significant indirect effect of a longer legislated (vs. shorter) leave on expected job commitment

via agency perceptions (indirect effect = $-.23$, $SE = .12$, 95% confidence interval [CI] $[-.53, -.06]$, $R^2 = .18$; see Figure 1).¹ These findings suggest that women who take longer legislated (vs. shorter) maternity leaves may incur lower evaluations when applying for leadership positions.

Study 2

Study 1 shows that lower perceptions of women's agency underlie the negative effect of longer legislated (vs. shorter) maternity leave on evaluations of women. This finding provides an avenue to explore and understand ways to mitigate negative effects of longer legislated maternity leaves. In Study 2, we thus take an interventionist approach and examine whether providing additional information about a woman's agency may mitigate such negative consequences. By manipulating perceptions of the woman's agency, Study 2 also seeks to provide causal evidence for our mediator. Namely, one limitation of Study 1 is that both the mediator (i.e., agency perceptions) and the dependent variable (i.e., job commitment perceptions) were measured at the same time, precluding any causality conclusions (Pirlott & MacKinnon, 2016; Spencer, Zanna, & Fong, 2005), and recent articles and advances in mediation analyses have called for a greater use of experimental manipulations of mediating processes (i.e., *manipulation-of-mediator design*, Pirlott & MacKinnon, 2016). One powerful type of manipulation-of-mediator design is a *concurrent double randomization design* in which both the independent and the mediator variables are manipulated in the same study (Pirlott & MacKinnon, 2016). Although this design aims to provide evidence for the process (i.e., mediation), statistically it entails testing an interaction between the two manipulated variables. In Study 2, we thus manipulated both the length of maternity leave and agency by providing either information about a woman's agency or gender-neutral information. We expected that the negative effect of a longer legislated (vs. shorter) maternity leave would be mitigated when information about the woman's agency is presented, whereas the negative effect would be observed when gender-neutral information is presented because it provides grounds for the woman's agency to be questioned.

Hypothesis 3: The negative effect of a longer legislated (vs. shorter) maternity leave on expected job commitment is mitigated when information about a woman's agency is provided, whereas the negative effect is observed when gender-neutral information is provided.

We also sought to expand the breadth of our dependent variables by examining whether negative effects of a longer legislated maternity leave extend beyond perceptions of expected job commitment to influence women's access to management positions, that is, hireability, given that role congruity theory ultimately

¹ We also examined whether participant gender may influence our results, but we found no effects of gender on any of our outcomes and controlling for gender did not change the significance of our results. In line with best practice recommendations that suggest not including control variables that do not influence results (Becker et al., 2016; Bernerth & Aguinis, 2016), we did not include gender in the report of our analyses in Study 1. We also did not find any effects of gender in Studies 2 and 3. These analyses can be obtained from the first author.

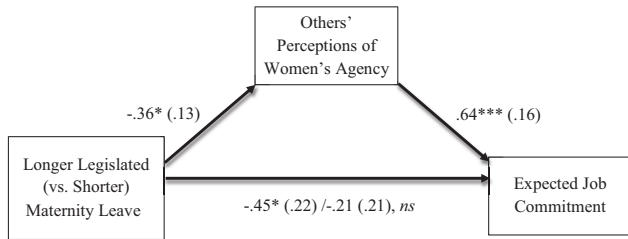


Figure 1. Others' perceptions of women's agency mediate the effect of a longer legislated maternity leave (i.e., 1 year; coded as 1) versus shorter maternity leave (i.e., 1 month; coded as 0) on expected job commitment perceptions in Study 1. The first regression coefficient ($-.45^*$) below the arrow connecting the longer legislated (vs. shorter) maternity leave with expected job commitment indicates a direct effect of the longer legislated (vs. shorter) maternity leave on expected job commitment, whereas the second regression coefficient ($-.21, ns$) indicates the effect of a longer legislated (vs. shorter) maternity leave on expected job commitment controlling for the mediator (i.e., others' perceptions of women's agency). Values are unstandardized coefficients (standard errors are in parentheses). ns = nonsignificant. $* p < .05$. $*** p < .001$.

suggests that women are less likely to be hired as leaders (Eagly & Karau, 2002). In a moderated mediation model, we test whether the negative effect of a longer legislated (vs. shorter) maternity leave on expected job commitment in turn lowers hireability when additional information provided is gender-neutral, whereas such negative effects are mitigated when information about agency is provided (see Figure 2).

Hypothesis 4: The negative effect of a longer legislated (vs. shorter) maternity leave on expected job commitment in turn lowers hireability when gender-neutral information is provided, whereas such negative effects are mitigated when information about a woman's agency is provided.

Method

Participants and procedure. Participants were 135 business undergraduate students (46% women; age: $M = 19.00$ years, $SD = 0.74$; work experience: $M = 2.82$ years, $SD = 1.99$) at a Canadian university who received research course credit for participation. A total of 152 participants completed the study, but we excluded 14 participants who did not correctly answer three attention checks (e.g., "Respond with 'agree' for this item"; Meade & Craig, 2012).

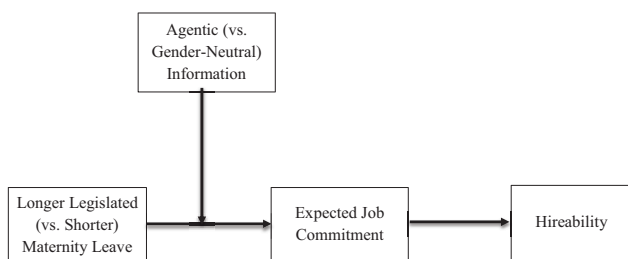


Figure 2. Agentic (vs. gender-neutral) information about the woman moderates the indirect effect of longer legislated (vs. shorter) maternity leave on hireability via expected job commitment in Study 2.

The procedure resembled the procedure in Study 1 with the same job advertisement and job application with random assignment of participants to either a 1-year or a 1-month maternity leave. Following the application, participants received additional information about the applicant ostensibly written by the applicant's supervisor in which the applicant was described as either agentic or in a gender-neutral manner (see Appendix A). Lastly, participants completed the measures described below.

Measures. We used the same scale as in Study 1 for job commitment ($\alpha = .75$) and a three-item scale for hireability from Rudman and Glick (1999) (e.g., "I would personally hire the applicant for the job"; $\alpha = .83$). The zero-order correlation between job commitment and hireability was $.28$. To ensure our manipulation worked, we used a 10-item agentic traits measure (Bem, 1974; e.g., dominant, independent; $\alpha = .86$). Finally, 99% participants correctly identified the type of leave and 89% correctly identified the length of the leave.

Results

As expected, participants in the agency information condition rated the applicant higher on agency ($M = 5.30$, $SD = 0.76$) than participants in the gender-neutral information condition ($M = 4.65$, $SD = 0.69$), $t(133) = -5.15$, $p < .001$, $SE = .12$, $d = .90$. To examine whether providing information about the applicant's agency mitigates negative job commitment perceptions for applicants who took a longer legislated maternity leave (Hypothesis 3), we conducted a 2 (longer legislated vs. shorter maternity leave) \times 2 (agentic vs. gender-neutral information) analysis of variance. In the main effects model, there was a main effect of the maternity leave manipulation, $F(1, 131) = 11.07$, $MSE = .821$, $p = .001$, $\eta_p^2 = .08$, with lower job commitment in the longer legislated ($M = 5.11$, $SD = 1.01$) versus shorter maternity leave condition ($M = 5.61$, $SD = 0.84$); and no main effect of the agency manipulation, $F(1, 131) = 3.87$, $MSE = .821$, $p = .051$, $\eta_p^2 = .03$. The R^2 for the main effects model was $.09$.

However, as expected, this main effect was qualified by an interaction between the maternity leave and the agency manipulation, $F(1, 130) = 3.93$, $MSE = .803$, $p = .049$, $\eta_p^2 = .03$ (overall model $R^2 = .12$, R^2 attributable to the interaction was $.03$; see Figure 3). Supporting Hypothesis 3, applicants who took a longer legislated ($M = 4.74$, $SD = 0.96$) versus shorter maternity leave ($M = 5.59$, $SD = 0.72$) were expected to be less committed, $F(1, 130) = 11.86$, $p = .001$, in the gender-neutral information condi-

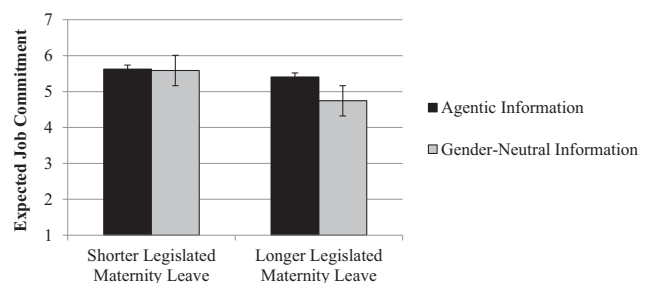


Figure 3. Agentic (vs. gender-neutral) information about the woman moderates the effect of a longer legislated (vs. shorter) maternity leave on expected job commitment of the woman in Study 2.

tion; there were no such differences in the agentic information condition (longer legislated maternity leave: $M = 5.41, SD = 0.96$; shorter maternity leave: $M = 5.63, SD = 0.92$), $F(1, 130) = 1.08, p = .301$).

We next tested the proposed moderated mediation model (Hypothesis 4) with Hayes’s (2013) PROCESS macro (Model 7), which uses two regression models and a bias-corrected bootstrapping technique (with 10,000 samples) to compute the conditional indirect effect. In the first regression, as described above, there was a significant interaction between the maternity leave and the agency manipulation in predicting job commitment. In the second regression, there was a significant effect of job commitment on hireability (see Table 1 for model coefficients). Supporting Hypothesis 4, the conditional indirect effect was significant when the additional information provided about the woman was gender-neutral (conditional indirect effect = $-.25, SE = .10, 95\% CI [-.51, -.09]$), and not agentic (conditional indirect effect = $-.07, SE = .08, 95\% CI [-.26, .06]$). Finally, the index of moderated mediation (i.e., the test of equality of the conditional indirect effects in the two groups) was also significant (index = $.18, SE = .11, 95\% CI [.01, .46]$) indicating that the two indirect effects were indeed different from each other. Our results show that providing information about the woman’s agency can be beneficial for evaluations of women who took longer legislated maternity leave.

Study 3

In Study 3, we extend our interventionist approach and seek to test the mitigating effects of using programs offered by organizations that have the potential to boost perceptions of agency by utilizing recent initiatives in corporate Canada. Specifically, it has been noted that many professional women feel disconnected from their workplace during their maternity leaves, making it hard to return to work (Grenier, 2017). In response to this, organizations in Canada have started implementing programs that enable women to stay connected to their workplace during maternity leave to the degree that they choose to (e.g., Eichler, 2011).

Drawing on signaling theory (Spence, 1973), we suggest that the existence and usage of such programs offers a unique opportunity for women to boost others’ perceptions of their

agency and in turn mitigate the potential negative consequences of taking a longer legislated maternity leave on their career outcomes. Namely, using such corporate programs enables women who take longer legislated maternity leaves to demonstrate their agency as even while being with a newborn baby (which is challenging on its own) they are managing to stay connected to some degree with their work indicating high levels of dedication to their work and careers. In Study 3, in a sample of Canadian employees, we examine in a serial mediation model whether taking advantage of a corporate program that provides women with opportunities to stay connected with work during their maternity leave may boost others’ perceptions of their agency and, in turn, also job commitment perceptions and hireability.

Hypothesis 5: The effect of using a corporate program that enables women to stay connected with their workplace (vs. no such program) on hireability is sequentially mediated by perceptions of agency and expected job commitment.

In our theoretical argument above we suggest that the mitigating effects of the corporate program happen when women use that program to signal their agency and dedication. However, there is a possibility that the mere existence of such a program may have mitigating effects because such a program may change stereotypical perceptions of women. Further, there is also a possibility that not taking advantage of such a program when it exists may hurt women because it may emphasize women’s communal side and signal their lack of agency. To disentangle the effects of mere program existence from program usage, in addition to having a condition where the program exists and is used (which is where we predict effects) we have two additional comparison conditions (in addition to a no program condition): the mere existence of a program with no information about its usage and the existence of a program without usage.

Method

Participants and procedure. Participants were 558 Canadian employees (66% women; age: $M = 41.50$ years, $SD = 12.05$; work experience: $M = 14.62$ years, $SD = 12.28$; 52%

Table 1
Coefficient Estimates for the Moderated Mediation Model (Study 2)

Variable	Stage 1 (dependent variable: job commitment)			Stage 2 (dependent variable: hireability)		
	B	SE	t	B	SE	t
Constant	5.59	.14	40.41***	3.83	.52	7.37***
Longer legislated (vs. shorter) maternity leave	-.84	.22	-3.77***	.06	.17	.34
Agentic (vs. gender-neutral) information	.04	.21	.19			
Longer legislated (vs. shorter) maternity leave × Agentic (vs. gender-neutral) information	.62	.31	1.98*			
Expected job commitment				.30	.09	3.28**
Total R ²		.12***			.08**	

Note. $N = 135$. Unstandardized coefficients are reported. Maternity leave length is coded as 1 = longer legislated leave (1 year) and 0 = shorter leave (1 month). Applicant information is coded as 1 = agentic information and 0 = gender-neutral information.

* $p < .05$. ** $p < .01$. *** $p < .001$.

managerial experience; 59% hiring experience) recruited using Qualtrics, a third-party organization that recruits participants through their research panels and administers online surveys (we paid \$10 USD to Qualtrics per participant). Qualtrics originally recruited a total of 640 participants, but 82 participants did not have complete data or did not correctly answer attention checks (Meade & Craig, 2012), and hence were not included in our final sample.

In an online survey, participants were first presented with the same job advertisement and a job application as in Study 1 and 2. Given that the focus of Study 3 was to examine an intervention that mitigates negative effects of a longer legislated maternity leave, all participants read that the applicant took a 1-year maternity leave. Next, participants were randomly assigned to one of four conditions: one of the three conditions in which participants read that the company offers a program for engaging employees while on leave (see Appendix B) but the applicant either used the program (*use of corporate program*), did not use the program (*no use of corporate program*), or there was no information about the program's usage (*corporate program with no usage information*); or to the *no program condition*, in which participants received no information about a program. Lastly, participants completed the same scales as in Study 1 and 2 measuring agency perceptions ($\alpha = .94$), job commitment ($\alpha = .88$), and hireability ($\alpha = .87$). All participants correctly identified the type of the leave and 96% correctly identified the length of leave. Participants also rated to what degree they perceived that the job ad they viewed at the beginning of the study was in regards to a leadership position. A mean higher than the midpoint of the scale (4) indicated that participants perceived that the applicant was applying for a leadership position ($M = 6.01$, $SD = 1.02$), $t(557) = 46.55$, $p < .001$.

Results

We conducted one-way analyses of variance to examine differences in agency perceptions, job commitment, and hireability among the four conditions. As expected, there was a main effect of condition when predicting agency perceptions, $F(3, 554) = 8.87$, $p < .001$, $\eta^2 = .05$; job commitment, $F(3, 554) = 25.76$, $p < .001$, $\eta^2 = .12$; and hireability, $F(3, 554) = 5.94$, $p = .001$, $\eta^2 = .03$. Means, standard deviations, and zero-order correlations are presented in Table 2. As expected, agency perceptions, job commitment, and hireability, were

higher in the *use of corporate program* condition than in any of the other three conditions (all comparisons $ps \leq .035$). Further, there were no differences among *no use of corporate program*, *the corporate program with no usage information*, and *no program condition* when predicting agency perceptions and hireability (all comparisons $ps \geq .522$). However, job commitment was lower in *no use of corporate program* than in either *the corporate program with no usage information* ($p < .001$) or *no program condition* ($p < .003$); there were no differences between *the corporate program with no usage information* and *no program* ($p = .567$).

Next, we tested our serial mediation model using PROCESS (Model 6; Hayes, 2013). Our independent variable had four conditions and thus we had to create a dichotomous variable for this analysis. Given that for the most part there were no differences among the three comparison conditions, we merged them together and created a dichotomous variable comparing the three merged conditions to the use of corporate program condition. We used this variable as an independent variable in testing our serial mediation model. Agency perceptions and expected job commitment perceptions were entered as the first and second mediator, respectively. Supporting Hypothesis 5, there was a significant indirect effect of the use of corporate program condition (vs. the merged three comparison conditions) on hireability through agency perceptions and expected job commitment (indirect effect = .11, $SE = .03$, 95% CI [.07, .18], $R^2 = .43$), operating sequentially (see Table 3 and Figure 4).

The results thus showed that using a corporate program giving women opportunities to stay connected with work while on maternity leave can be a successful agency intervention, mitigating the negative effects of longer legislated maternity leaves. This study also suggests that the mere existence of such a program is not enough to combat negative effects of longer legislated maternity leaves and that taking advantage of such a program is important for enhancing perceptions of agency. The responsibility is thus both on organizations to offer such programs and women to take advantage of them. While this may not be ideal as it may put pressure on women, organizations seem to be moving in the right direction with these initiatives as they are giving women more opportunities if they choose to take advantage of them. Also, although most of our results suggest that not using such a program is not influencing evaluations of women (agency and hireability), there was an unex-

Table 2
Means, Standard Deviations, Cronbach's Alphas, and Correlations (Study 3)

Variable	Use of corporate program ($n = 127$)	No use of corporate program ($n = 143$)	Corporate program with no usage information ($n = 126$)	No corporate program ($n = 162$)	1	2	3
1. Agency perceptions	5.48 (.69) _a	5.00 (.82) _b	5.10 (.87) _b	5.13 (.79) _b	(.94)		
2. Expected job commitment	5.69 (.82) _a	4.58 (1.27) _b	5.16 (1.10) _c	5.00 (.92) _c	.67***	(.88)	
3. Hireability	5.52 (.89) _a	4.99 (1.23) _b	5.16 (1.14) _b	5.16 (.94) _b	.60***	.60***	(.87)

Note. Columns labeled "use of corporate program," "no use of corporate program," "corporate program with no usage information," and "no corporate program" present means and standard deviations (standard deviations are in parentheses). In each row, means with different subscripts differ significantly at $p < .05$. For agency perceptions, expected job commitment, and hireability, the scale ranged from 1 to 7. Cronbach's alphas are presented in parentheses. *** $p < .001$.

Table 3
Regression Coefficients, Standard Errors, and Model Summary Information for the Serial Mediation Model (Study 3)

Predictors	Agency perceptions (M1)		Expected job commitment (M2)		Hireability	
	Estimate	SE	Estimate	SE	Estimate	SE
Independent variable						
Use of corporate program vs. three merged comparison conditions	.40***	.08	.43***	.08	-.04	.09
Mediators						
Agency perceptions			.86***	.04	.48***	.06
Expected job commitment					.35***	.04
Intercept	5.08***	.04	.53*	.22	.95***	.22
Model summary information	$R^2 = .04$ $F(1, 556) = 24.59***$		$R^2 = .47$ $F(2, 555) = 245.03***$		$R^2 = .43$ $F(3, 554) = 141.23***$	

Note. $N = 558$; $M =$ Mediator.
* $p < .05$. *** $p < .001$.

pected negative effect on job commitment indicating a possibility that not using such a program may have some negative consequences.

Discussion

To support women in the workplace, longer legislated maternity leave policies have been gaining traction in more countries. While such policies are well-meaning and progressive, research suggests that they may negatively affect women’s careers. In this article, we identified lower perceptions of women’s agency as one potential underlying mechanism of the negative effects of longer legislated (vs. shorter) maternity leaves. This was of ultimate importance because it enabled us to identify a way for organizations and women to mitigate these negative effects.

By doing so, our work contributes to the literature on maternity leaves in several ways. First, our work identifies agency as an important underlying mechanism, which offers ways for intervening and combating the unintended negative effects of longer legislated maternity leaves. This is important because most women in Canada take a 1-year maternity leave (Findlay & Kohen, 2012) and finding a strategy in which women can both take time to be with their newborn children and also avoid career penalties is crucial to our society. Moreover, past research suggests that longer maternity leaves are positively related with both the health of the mother and children (Rossin, 2011; Staehelin, Bertea, & Stutz, 2007), making it even more important to find ways to mitigate such negative effects. Our work suggests that when longer legislated maternity leaves are coupled with agency enhancements, women are less likely to

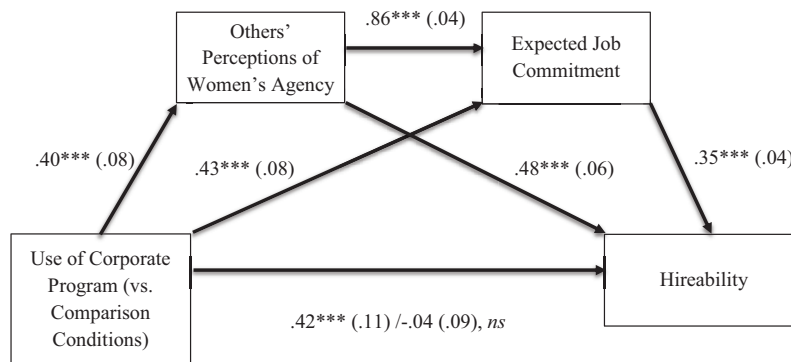


Figure 4. Others’ perceptions of women’s agency and expected job commitment perceptions mediate sequentially the relationship between the use of corporate program condition (coded as 1) versus the three comparison conditions (we merged the three comparison conditions: no use of corporate program, corporate program with no usage information, and no program condition; coded as 0) and hireability ratings in Study 3. The first regression coefficient (.42***) below the arrow connecting the use of corporate program condition (vs. comparison conditions) with hireability indicates a direct effect of the use of corporate program condition (vs. comparison conditions) on hireability, whereas the second regression coefficient (–.04, ns) indicates the effect of the use of corporate program condition (vs. comparison conditions) on hireability controlling for the two mediators (i.e., others’ perceptions of women’s agency and expected job commitment). Values are unstandardized coefficients (standard errors are in parentheses). ns = nonsignificant. *** $p < .001$.

incur negative consequences. Further, our results build on and extend recent findings showing that women employ a range of strategies to manage their workplace impressions during pregnancy, including planning to take a shorter maternity leave and that these strategies are related to reduced perceptions of discrimination, lessened burnout, and increased likelihood of returning to one's job (Little, Major, Hinojosa, & Nelson, 2015). Our results, however, suggest that women do not necessarily need to reduce time with their newborns to succeed in their careers, as there is a practical way for organizations and women to partner in mitigating these unintended negative consequences. In fact, with agency interventions, women can devote more time to their families and excel at work when agency perceptions are enhanced.

Limitations and Future Directions

Some limitations of our work should be noted. First, our samples in Study 1 and 2 used undergraduate students whose work experience generally is limited. We address this concern in Study 3 using a sample of employees with substantial work experience. Further, our effect sizes were small. However, although small, our effect sizes were meaningful for the following reasons. First, the female applicant in our studies was portrayed as highly qualified and even under such circumstances, the applicant who took a longer legislated (vs. shorter) maternity leave was evaluated less favorably. Cortina and Landis (2009) called this type of design "inauspicious" and suggested that small effect sizes in such studies tell a big story because, in spite of subtle manipulations, effects were still observed. Second, as women tend to be underrepresented in the pool of candidates for leadership positions, having even slightly lower ratings due to a maternity leave may make a big difference in whether a woman is appointed to a leadership position further contributing to underrepresentation of women in leadership positions. Finally, it is difficult to tease apart whether negative reactions to longer legislated maternity leaves are due to the leave length or being standard because longer legislated leaves contain elements of both being longer and standard. Future research is needed to unpack these effects.

Practical Implications

Our findings suggest that commonly taken 1-year maternity leaves in corporate Canada may have unintended negative consequences for women's careers unless some mitigating measures are in place. For example, our Study 3 suggests that corporate programs that offer women opportunities to stay in touch with their work and taking advantage of such programs may be an effective way to enhance others' perceptions of women's agency. In some cases when women go on maternity leave, their electronics (e.g., laptops, phones) that are meant for business only are taken away and given to the individual who is backfilling the position (Equality & Human Rights Commission, 2017), which makes it difficult for women to stay connected with the workplace even when they want to be. Providing women with creative avenues to stay engaged with the workplace, to the extent they wish, gives women who take a longer legislated maternity leave an opportunity to demonstrate their agentic traits. Our results thus provide prelimi-

nary evidence that innovative practices that some organizations are putting in place (Eichler, 2011) are effective in helping new mothers stay and grow in the workplace to the extent that women chose to participate in these programs. That is, while the mere existence of such a program does not seem to have mitigating effects, the existence coupled with its usage seems to be effective. The downside of this approach is that women may feel pressured to stay connected to the workplace even though they may not want to be. At the same time, some women may want to be engaged and may find it frustrating if there are no options for keeping in touch. Overall, it seems that such initiatives may be a step in the right direction and that organizations need to partner with women to mitigate such negative effects.

An additional way to combat unintentional negative consequences of longer maternity leaves is to raise awareness among managers and decision-makers that maternity leaves may invoke negative perceptions of employees who take such leaves and seek ways to overcome such biases when making important decisions. Supporting this approach, past research has shown that raising awareness about harmful effects of prejudice and stereotypes can lead to reduction in such attitudes (Becker & Swim, 2012). Finally, for women who are seeking to pursue management positions, our results suggest that unintentional negative effects of commonly taken maternity leaves in Canada can be buffered by emphasizing their agency. Other than using a corporate program to demonstrate agency, women may consider finding career sponsors who could emphasize women's agency to others and champion their careers.

In conclusion, by drawing on and integrating role congruity theory and signaling theory we identified one mechanism of the negative effects of taking a longer legislated (vs. shorter) maternity leave on women's career outcomes: others' lower perceptions of women's agency. This, in turn, allowed us to test avenues through which these negative effects can be combated, providing guidance on how women may choose to take longer legislated maternity leaves without jeopardizing their careers. The ability to take a longer legislated maternity leave without subsequent career penalties is an important mechanism for achieving greater work-life balance, for promotion of women into leadership positions, and for organizations to retain and grow talent.

References

- Alini, E. (2017, March 22). Federal budget 2017: Liberals extend parental leave to 18 months, boost childcare funding. *The Globe and Mail*. Retrieved from <http://globalnews.ca/news/3328107/federal-budget-2017-liberals-extend-parental-leave-to-18-months-boost-childcare-funding/>
- Andressen, E. (2017, March 24). Seven things to know about Canada's new parental leave benefits. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/life/parenting/mothers-day/federal-budget-2017-maternity-leave/article34414374/>
- Becker, J. C., & Swim, J. K. (2012). Reducing endorsement of benevolent and modern sexist beliefs: Differential effects of addressing harm versus pervasiveness of benevolent sexism. *Social Psychology*, *43*, 127–137. <http://dx.doi.org/10.1027/1864-9335/a000091>
- Becker, T. E., Atinc, G., Breaugh, J. A., Carlson, K. D., Edwards, J. R., & Spector, P. E. (2016). Statistical control in correlational studies: 10 essential recommendations for organizational researchers. *Journal of Organizational Behavior*, *37*, 157–167. <http://dx.doi.org/10.1002/job.2053>

- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155–162. <http://dx.doi.org/10.1037/h0036215>
- Bernerth, J. B., & Aguinis, H. (2016). A critical review and best practice recommendations for control variable usage. *Personnel Psychology, 69*, 229–283. <http://dx.doi.org/10.1111/peps.12103>
- Blau, F. D., & Kahn, L. M. (2013). Female labor supply: Why is the United States falling behind? *The American Economic Review, 103*, 251–256. <http://dx.doi.org/10.1257/aer.103.3.251>
- Cortina, J. M., & Landis, R. S. (2009). When small effect sizes tell a big story, and when large effect sizes don't. In C. E. Lance & R. J. Vandenberg (Eds.), *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences* (pp. 287–308). New York, NY: Routledge/Taylor & Francis Group.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*, 573–598. <http://dx.doi.org/10.1037/0033-295X.109.3.573>
- Eichler, L. (2011, November 18). Maternity buddies: Staying linked to the workplace. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/report-on-business/careers/career-advice/maternity-buddies-staying-linked-to-the-workplace/article4200796/>
- Equality and Human Rights Commission. (2017). *Employers: Managing maternity leave*. Retrieved from <https://www.equalityhumanrights.com/en/managing-pregnancy-and-maternity-workplace/employers-managing-maternity-leave>
- Evertsson, M., & Duvander, A. Z. (2011). Parental leave—Possibility or trap? Does family leave length affect Swedish women's labour market opportunities? *European Sociological Review, 27*, 435–450. <http://dx.doi.org/10.1093/esr/jcq018>
- Findlay, L. C., & Kohen, D. E. (2012). Leave practices of parents after the birth or adoption of young children. *Canadian Social Trends*. Retrieved from <http://www.statcan.gc.ca/pub/11-008-x/2012002/article/11697-eng.pdf>
- Grenier, A. (2017, March 6). Supporting working moms—Before, during and after maternity leave. *Great Place to Work*. Retrieved from <https://www.greatplacetowork.ca/en/articles/221-supporting-working-moms-before-during-and-after-maternity-leave>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks? The implied communality deficit. *Journal of Applied Psychology, 92*, 81–92. <http://dx.doi.org/10.1037/0021-9010.92.1.81>
- Heilman, M. E., & Okimoto, T. G. (2008). Motherhood: A potential source of bias in employment decisions. *Journal of Applied Psychology, 93*, 189–198. <http://dx.doi.org/10.1037/0021-9010.93.1.189>
- Lequien, L. (2012). The impact of parental leave duration on later wages. *Annales d'Economie et de Statistique, 107–108*, 267–285. <http://dx.doi.org/10.2307/23646579>
- Leslie, L. M., Manchester, C. F., Park, T. Y., & Mehng, S. A. (2012). Flexible work practices: A source of career premiums or penalties? *Academy of Management Journal, 55*, 1407–1428. <http://dx.doi.org/10.5465/amj.2010.0651>
- Little, L. M., Major, V. S., Hinojosa, A. S., & Nelson, D. L. (2015). Professional image maintenance: How women navigate pregnancy in the workplace. *Academy of Management Journal, 58*, 8–37. <http://dx.doi.org/10.5465/amj.2013.0599>
- Marshall, K. (1999). Employment after childbirth. *Perspectives on Labour and Income, 11*, 18–25. Retrieved from <https://www.statcan.gc.ca/pub/75-001-x/1999003/4682-eng.pdf>
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*, 437–455. <http://dx.doi.org/10.1037/a0028085>
- Morgenroth, T., & Heilman, M. E. (2017). Should I stay or should I go? Implications for maternity leave choice for perceptions of working mothers. *Journal of Experimental Social Psychology, 72*, 53–56. <http://dx.doi.org/10.1016/j.jesp.2017.04.008>
- Olivetti, C., & Petrongolo, B. (2017). The economic consequences of family policies: Lessons from a century of legislation in high-income countries. *The Journal of Economic Perspectives, 31*, 205–230. <http://dx.doi.org/10.1257/jep.31.1.205>
- Paustian-Underdahl, S. C., Halbesleben, J. R., Carlson, D. S., & Kacmar, K. M. (2016). The work-family interface and promotability: Boundary integration as a double-edged sword. *Journal of Management, 42*, 960–981. <http://dx.doi.org/10.1177/0149206313506464>
- Pirlott, A. G., & MacKinnon, D. P. (2016). Design approaches to experimental mediation. *Journal of Experimental Social Psychology, 66*, 29–38. <http://dx.doi.org/10.1016/j.jesp.2015.09.012>
- Rossin, M. (2011). The effects of maternity leave on children's birth and infant health outcomes in the United States. *Journal of Health Economics, 30*, 221–239. <http://dx.doi.org/10.1016/j.jhealeco.2011.01.005>
- Rossin-Slater, M. (2017). Maternity and family leave policy. In S. L. Averett, L. M. Argys, & S. D. Hoffman (Eds.), *Oxford handbook on the economics of women*. New York, NY: Oxford University Press. <http://dx.doi.org/10.3386/w23069>
- Rudman, L. A., & Glick, P. (1999). Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology, 77*, 1004–1010. <http://dx.doi.org/10.1037/0022-3514.77.5.1004>
- Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology, 48*, 165–179. <http://dx.doi.org/10.1016/j.jesp.2011.10.008>
- Ruhm, C. J. (1998). The economic consequences of parental leave mandates: Lessons from Europe. *The Quarterly Journal of Economics, 113*, 285–317. <http://dx.doi.org/10.1162/003355398555586>
- Service Canada. (2016). *Employment insurance maternity and parental benefits*. Retrieved from http://www.servicecanada.gc.ca/eng/ei/types/maternity_parental.shtml
- Spence, M. (1973). Job market signalling. *The Quarterly Journal of Economics, 87*, 355–374. <http://dx.doi.org/10.2307/1882010>
- Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology, 89*, 845–851. <http://dx.doi.org/10.1037/0022-3514.89.6.845>
- Stahelin, K., Berteau, P. C., & Stutz, E. Z. (2007). Length of maternity leave and health of mother and child—A review. *International Journal of Public Health, 52*, 202–209. <http://dx.doi.org/10.1007/s00038-007-5122-1>

(Appendices follow)

Appendix A

Study 2 Agency Manipulation

The Agency Information Condition

Subordinates have often described Elizabeth as someone who is career oriented, assertive, and willing to take risks. She is also known to be ambitious and willing to take a stand.

The Gender-Neutral Information Condition

Subordinates have often described Elizabeth as someone who is tactful, conscientious, and likeable. She is also known to be reliable and adaptable to change.²

²The traits used in these two descriptions were taken from the Bem Sex-Role Inventory (Bem, 1974) and Rudman et al.'s (2012) gender prescriptive traits scale. Prior to conducting Study 2, we pilot tested our manipulation in a separate sample of 40 students and we found, as expected, that perceptions of agency were higher in the agency information condition ($M = 5.78$, $SD = 0.71$) than in the gender-neutral information condition ($M = 5.23$, $SD = 0.73$), $t(38) = 2.39$, $p = .022$, $d = .77$.

Appendix B

Description of Corporate Program in Study 3

Supreme Marketing Solutions is pleased to offer a Keep-in-Touch program that gives employees on maternity/paternity leave an opportunity to stay up-to-date on their projects and participate in the development of new projects. Overall, it gives employees the opportunity to be engaged with their work, projects, and clients to the degree to which they desire and have opportunity for, as well as accessing professional development opportunities. Employees who use this program have the opportunity to receive updates on

their projects, attend project development meetings, and be in contact with other employees and clients while they are on maternity/paternity leave.

Received September 12, 2016
 Revision received April 24, 2018
 Accepted April 24, 2018 ■