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Expressive suppression as an emotion regulation technique and its potential impact on perceived stress

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A B S T R A C T

Expressive suppression is the process of decreasing, increasing, or maintaining emotional intensity over a period of time. It is employed as an immediate response to emotional stimuli and can result in negative psychological outcomes. This emotional regulation process can be harmful in the workplace, especially when one considers time pressures and the standard corporate hierarchical structure in modern America, which potentially also introduces stress into situations due to the "superior/subordinate" relationship. This study analyzed the correlation between self-reported high usage of expressive suppression and perceived stress and found that a correlation does exist between the emotion regulation technique and perceived stress. The study also reviewed other workplace situations and found that being in the presence of a superior also plays a role in this dynamic. The study highlights the stress impact of employing expressive suppression and the need for further research into factors within the workplace that impact an individual's emotional regulation and impact overall stress.

1. Introduction

Expressive suppression is a type of emotional regulation that has captured the interest of researchers in emotional intelligence. Emotional intelligence refers to one's ability to recognize their own emotional state and manage their emotions in ways that enhance their own wellness and enhance their social interactions (Segal et al., 2018). Peter Salovey & John Mayer developed emotional intelligence in 1990 (Bracket et al., 2021), and Daniel Goleman (in 1995) notably developed ways to apply emotional intelligence to the business world (Riopel, 2021). Daniel Goleman sought to teach emotional intelligence in a way that would allow businesspeople to understand the tangible business benefit of good emotional intelligence (Goleman, 1995). This study addresses the ways that business professionals manage their emotions, and this study specifically seeks to understand the relationship between the use of expressive suppression and perceived stress in the workplace. Expressive suppression is considered an unconstructive way to manage emotions; it involves suppressing emotions, and it has been found to increase tension (Szczygieł & Maruszewski, 2015). This study will add to the literature by calculating a correlation between expressive suppression and perceived stress and by examining the role of management pressure and time pressure in the use of expressive suppression.

The remainder of this article will review the literature related to workplace use of emotional regulation and explain the methodology used in this study. The results and conclusions do support an association between expressive suppression and perceived stress; the findings related to management pressure and time pressure are mixed and will be carefully discussed. There

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are a number of tangential findings in this study that suggest promising areas for future research. Specifically, the results show a strong (negative) relationship between perceived stress when subjects use cognitive reappraisal, which is an alternative emotional response strategy to expressive suppression. The results also show several factors that are related to stress besides expressive suppression. Lastly, the results show a strong correlation between management pressure and time pressure. These results, the appropriate conclusions, the limitations, and the stemming future research opportunities will be discussed in the following sections.

2. Literature Review

A core component of emotional intelligence is self-regulation (Goleman, 2006; Gross & John, 2003; Petrides & Furnham, 2000). *Emotion regulation* refers to the process of decreasing, increasing, or maintaining emotional intensity over a period of time (Webb et al., 2012). One of many forms of emotion regulation, expressive suppression, has been noted to impact the emotion regulation process as a predominantly response-focused strategy that intercedes when emotions are already in progress and a behavioral response is elicited (Cutuli, 2014). *Expressive suppression* refers to the attempt to hide, reduce, or inhibit ongoing emotion-expressive behavior (Gross & Levenson, 1993). Expressive suppression can be conducted as an immediate response and is the act of "inhibiting the outward signs of inner feelings" (Gross, 2002, p. 42). Szczygieł and Maruszewski (2015) have noted that expressive suppression leads to an increase in subjective tense arousal and degrades the memory of events that occurred during the deployment of the regulation strategy. Stress that is caused by the use of expressive suppression can lead to negative health outcomes (Szabo et al., 2012). Habitual use of suppression has been linked to higher levels of negative emotional experiences (Koval et al., 2015), while other emotion regulation techniques, such as cognitive reappraisal, are considered successful strategies. Cognitive reappraisal, for example, "involves cognitively changing our thoughts, which in turn change our emotions" (Bebko et al., 2011, p. 504).

This research seeks to understand the relationship between perceived stress and expressive suppression. In doing so, this study will also test the relationship between perceived stress and cognitive reappraisal. Expressive suppression is a response to emotions that have already been generated, and an individual must exert effort over time to maintain expressive suppression (Cutuli, 2014). Whereas, cognitive reappraisal is a strategy used before emotional responses are fully generated (Cutuli, 2014); thus, cognitive reappraisal does not require ongoing effort over time, as does expressive suppression. Gross and Feldman Barrett (2011) review literature on emotion regulation and find that the four main historical models of emotion agree that emotions are time- and appraisal based. In observing the associations with perceived stress in this study, this research can assess the degree to which participants maintain emotional intensity over time (which could be judged in the context of historical emotion models as having a negative impact because of the time-based negative emotions) or create less burdensome emotions with cognitive reappraisal (which could be judged in the context of historical emotion models as having positive, appraisal-based outcomes).

Corporate America is obsessed with the speed of progress and with the pace of its workforce, and societal pressure to move faster is at an all-time high (Brown, 2014; Masciotra, 2013). The standard corporate hierarchical structure also potentially introduces stress into situations due to the complexity of the "superior/subordinate" relationship (Baird & Kram, 1983). The research in this article seeks to better understand how expressive suppression is utilized in the workplace and how being in the presence of a superior and time pressure impact this dynamic.

3. Methodology

3.1 Research Questions and Hypotheses

This research aims to understand whether fully employed adults utilize expressive suppression as an emotion regulation technique, and if so, what, if any, impact this deployment technique has on perceived stress. In addition, this research seeks to understand if any other workplace factors ("being in the presence of a superior" and "time pressure") play a factor in the emotion regulation of reactions to the stress dynamic. The following research questions and hypotheses have guided this research. First, the initial question asks if a correlation exists between the use of expressive suppression and perceived stress. If the data had shown that expressive suppression was not deployed as an emotion regulation technique, or that there was no correlation between this technique and perceived stress, then the subsequent questions would have become irrelevant.

> **Research Question 1.** Does a correlation exist between a self-reported high usage of expressive suppression and perceived stress amongst fully employed adults?
>
> **Hypothesis $_0$1.** No significant correlation exists between a self-reported high usage of expressive suppression and perceived stress amongst fully employed adults.
>
> **Hypothesis $_A$1.** There is a significant correlation between a self-reported high usage of expressive suppression and perceived stress amongst fully employed adults.

In the second and third research questions, this research seeks to understand how other workplace situations interacted with the variables of expressive suppression and perceived stress. Specifically of interest were the variables of "being in the presence of a 'superior'" and "time pressure."

Research Question 2. Does being in the presence of a "superior" play a role in an individual's emotional responses?

Hypothesis $_0$2. Being in the presence of a "superior" does not factor into an individual's emotional responses.

Hypothesis $_A$2. Being in the presence of a "superior" does factor into an individual's emotional responses.

Research Question 3. Does time pressure play a role in an individual's emotional responses?

Hypothesis $_0$3. "Time pressure" does not factor into an individual's emotional responses.

Hypothesis $_A$3. "Time pressure" does factor into an individual's emotional responses.

3.2 Sample Population

This research utilizes Amazon's Mechanical Turk (MTurk) to provide a demographically diverse sample from an adult, U.S.-based, fully employed private-sector population. Prior research has shown that data from MTurk is as reliable as standard laboratory data (Buhrmester, Kwang, & Gosling, 2011; Germine et al., 2012; Rice, Winter, Doherty, & Milner, 2016). The population for this study comprised fully employed adults over the age of 18 and under the age of 65 living in the United States. There were 470 participants, with 185 (39.4%) who identified as male and 285 (60.66%) who identified as female. As seen in Table 1, all participants were 18 years old or older; 361 (77.0%) identified as Caucasian, 34 (7.2%) identified as of Asian descent, 33 (7.0%) identified as of African descent, 28 (6.0%) identified as of Hispanic descent, 11 (2.3%) identified as "Other," and 2 (0.4%) identified as of Indian descent.

Table 1
Participant Demographics

Questions and Answers	Number	Percentage
Are you at least 18 years of age?		
Yes	470	100.0
Are you male or female?		
Male	185	39.4
Female	285	60.6
Total	470	100.0
What is your ethnicity?		
Caucasian	361	77.0
Hispanic descent (e.g., Latin American)	28	6.0
African descent (e.g., African American)	33	7.0
Asian descent	34	7.2
Other	11	2.3
Indian (Not Asian)	2	0.4
Total	469	100.0
Total	470[a]	

[a]1 missing demographic response.

3.3 Data Collection and Management

Respondents received a summary explanation of emotion regulation and a written overview of the techniques that one may use to regulate emotions. Once they completed reading the overview of the material, they were asked to sign an acknowledgement statement affirming that they understood the core concepts; if they did not sign, they would have been thanked for their participation and exited from the survey. Participants then received Gross's Emotion Regulation Questionnaire (ERQ) (Gross & John, 2003). Gross's ERQ is a 10-item scale that seeks to measure two emotion regulation strategies, specifically cognitive reappraisal and expressive suppression, the latter being the focus of this research. Participants then received a set of follow-up workplace situation questions. These questions were geared toward the variables of "being in the presence of superior" and "time pressure." The questions asked were as follows:

- In the past month, how much did being in the presence of a superior play in your emotional responses?

- If you were not in the presence of a superior, would you have deployed another emotion regulation technique?
- In the past month, how much did time pressure play in your emotional responses?
- If time was not a factor, would you have deployed another emotion regulation technique if you had more time to process the event or situation?

Finally, participants received the Perceived Stress Scale, 14-question format (PSS-14).
The PSS-14 is a 14-question measurement that indicates "the degree to which individuals appraise situations in their lives as stressful" (Cohen, Kamarch, & Mermelstein, 1983, p. 385).

3.4 Data Cleaning, Coding, and Outliers

The process of data cleaning was aimed at detecting and correcting (or removing) inaccurate records to identify incomplete, incorrect, inaccurate, or irrelevant parts of the data and then to replace, modify, or delete the affected data to comply with research best practices (Chu, Ilyas, Krishnan, & Wang, 2016; Montag, 2017). Next, the process involved looking for coding errors, such as in the case of gender. In most cases, gender would have the possible codes of 1 = male, 2 = female, and 0 = missing; a code of 22 would have been an error, while other errors might have included missing data values. This was checked and corrected with frequency tests (Chu et al., 2016).

The issue of statistically significant outliers can adversely impact data, especially if the sample is small. Moreover, outliers can hide or create statistical significance and are important to identify. A boxplot was created and used to quickly identify outliers. Further, this research checked for logical consistency of answers and used cross-tabulating pairs of variables to find inconsistencies to follow research best practices (Chu et al., 2016). No significant inconsistencies were found in the data.

3.5 Data Analysis Procedures

The key methodology in this study calculates a bivariate Pearson's correlation coefficient (referred to here simply as the correlation coefficient) between all variables of interest in this study. SPSS software was used to calculate each correlation. Pearson's correlation is the most common of the popular variations of correlation coefficients, and the resulting calculation quantifies the strength and direction of the correlation with a metric ranging from -1 to 1 (Cozby & Bates, 2015). Additionally, the Pearson's correlation coefficient calculates the confidence (p-values) with which the results of sample data can be used to make inferential statements about the entire population (Freed et al., 2013). The p-value is the probability that the sample results would be randomly selected if the null hypothesis were true; thus, lower p-values indicate a lower likelihood that the null hypothesis is true and stronger evidence that the null hypothesis should be rejected (Freed et al., 2013). The significance level defines how low a p-value should be before a null hypothesis is rejected and the alternative hypothesis is accepted (Freed et al., 2013). A significance level of 5% is used in this research, which is a commonly used research standard (Freed et al., 2013).

A relatively recent article by Gignac & Szodorai (2016) studied the typical strength of correlations in published research in cognitive and behavioral sciences, and found that the typical strength of correlation was an absolute value of 0.20. Specifically, Gignac & Szodorai (2016) used the 25^{th}, 50^{th}, and 75^{th} percentile of correlations in published research to respectively define small, typical, and large correlations in published research. Gignac & Szodorai (2016) found that an absolute value of 0.10 was a small effect (25^{th} percentile), an absolute value of 0.20 was a typical effect (50^{th} percentile), and an absolute value of 0.30 was a large effect (75^{th} percentile).

Given that the focus of this research is on expressive suppression, a Pearson's correlation coefficient is calculated between the use of expressive suppression and (individually) perceived stress, cognitive reappraisal, superior effect, and time effect. As part of the methodology, this study also calculates bivariate correlation coefficients among all of the variables studied. Also as part of the methodology, several multiple (multivariate) regressions were conducted with expressive suppression or perceived stress as the dependent variable and most of the possible combinations of the remaining variables as the independent variables. As will be mentioned briefly in the following section, the multiple (multivariate) regressions did not yield additional insight beyond the bivariate correlations. Thus, because of the lack of substantial conclusions, those results are not highlighted in this article (Gutierrez, 2016).

4. Results

Table 2 illustrates the key results in this study. As noted in the methodology, the conclusions in this research will be primarily based on bivariate Pearson's correlation coefficients. Also as noted in the methodology, a large number of multiple regressions were tested, and these multiple regressions used perceived stress as the dependent variable or expressive suppression as the dependent variable. The independent variables tested included virtually every combination of the remaining variables. These multiple regressions were conducted in order to determine if controlling for certain variables would lead to insightful conclusions about the true effect of other variables. However, the multiple regression analyses did not lead to additional insight. In general, the percent of variation explained did not increase in any significant way when additional independent variables were

added. Furthermore, variables that were not significant as bivariate correlations did not become significant within multiple regressions. Thus, the bivariate results in Table 2 will form the key conclusions in this research. The Table 2 results will answer the three research questions, and the results in Table 2 will also illuminate additional insights that will be assessed here in the results and in the following sections.

Table 2
Bivariate Pearson Correlation Coefficients Among all Studied Variables

	ES Score	CR Score	Superior Effect	Time Effect	Perceived Stress
Expressive Suppression	**1**	**0.014**	**0.106***	**0.031**	**0.130****
P-Value		*0.759*	*0.036*	*0.510*	*0.005*
Cognitive Reappraisal	**0.014**	**1**	**0.030**	**0.073**	**-0.262****
P-Value	*0.759*		*0.550*	*0.122*	*0.000*
Superior Effect	**0.106***	**0.030**	**1**	**0.484****	**0.273****
P-Value	*0.036*	*0.550*		*0.000*	*0.000*
Time Effect	**0.031**	**0.073**	**0.484****	**1**	**0.270****
P-Value	*0.510*	*0.122*	*0.000*		*0.000*
Perceived Stress	**0.130****	**-0.262****	**0.273****	**0.270****	**1**
P-Value	*0.005*	*0.000*	*0.000*	*0.000*	

*Statistically significant at the 5% level

**Statistically significant at the 1% level

4.1 Research Question 1. Does a correlation exist between a self-reported high usage of expressive suppression and perceived stress amongst fully employed adults?

The results indicate a statistically significant correlation between these two variables. As noted in Table 2, the correlation between self-reported expressive suppression and self-reported perceived stress is 0.130, and the p-value is 0.005. This low p-value indicates a strongly statistically significant correlation, and the null hypothesis is rejected. While the results justify rejecting the null hypothesis, the correlation coefficient of 0.130 is small as defined by Gignac & Szodorai (2016); thus, the conclusions that can be drawn based on this small effect are somewhat limited.

4.2 Research Question 2. Does being in the presence of a "superior" play a role in an individual's emotional responses?

The results show a statistically significant correlation between these variables. As seen in Table 2, the correlation coefficient between expressive suppression and the presence of a supervisor is 0.106, and the p-value is 0.036. Since a significance level of 5% is used, this result indicates a statistically significant correlation, and the null hypothesis can be rejected. As with the results in the first research question, the correlation coefficient is small, and analysis is required to assess the appropriate conclusions that can be based on these results.

4.3 Research Question 3. Does time pressure play a role in an individual's emotional responses?

The results here do not demonstrate a significant relationship between expressive suppression and time pressure. As indicated in Table 2, the correlation coefficient between expressive suppression and time effect is 0.031 with a p-value of 0.510. The p-value is not at all close to indicating a significant relationship, and it appears that these two variables are not correlated. While time pressure is not found to be related to expressive suppression, this study does find other noteworthy results related to time pressure. The following sections will note that time pressure is related to perceived stress (correlation of 0.270 with a strong p-value of less than 0.001), and that time pressure is related to the superior effect (correlation of 0.484 with a strong p-value of less than 0.001). The implications of both of these findings will be assessed in the conclusion.

4.4 Perceived Stress is Correlated with Many Variables

The results indicate that perceived stress is (individually) correlated with all of the variables studied in this research, and that finding will be carefully explored in the conclusion. As previously noted, Table 2 shows a correlation between perceived stress and expressive suppression of 0.130 with a statistically significant p-value of 0.005. Table 2 shows a correlation between perceived stress and reappraisal score of -0.262 with a p-value of less than 0.001. Table 2 also indicates that the correlation between stress and the presence of a superior is 0.273 with a p-value of less than 0.001. Lastly, Table 2 shows a correlation

between stress and time pressure of 0.270 with a p-value of less than 0.001. While the focus of this study is on expressive suppression, the finding of many correlations with stress adds to this field of study and will be discussed in the conclusion.

4. 5 Superior Effect and Time Effect Strongly Correlated

The last noteworthy result, and the only remaining statistically significant correlation shown in Table 2, is the correlation between the presence of a superior and time pressure. Table 2 shows a correlation coefficient of 0.484 and a p-value of less than 0.001, which is by far the strongest correlation studied in this research. This correlation coefficient of 0.484 is well past the threshold for a large effect as defined by Gignac & Szodorai (2016). In fact, Gignac & Szodorai (2016) find that less than 5% of published research in cognitive and behavioral sciences report correlations at or above 0.484. The possible implications of this finding will be discussed in the conclusion.

5. Conclusions

5.1 Research Question 1. Does a correlation exist between a self-reported high usage of expressive suppression and perceived stress amongst fully employed adults?

The answer to Research Question 1 is yes, and the null hypothesis of no correlation is rejected. As noted in the results, there is in fact a correlation between expressive suppression and perceived stress with a correlation coefficient of 0.130 with a p-value is 0.005. However, it is a weak correlation (Gignac & Szodorai**,** 2016). Because of the low correlation, it would be problematic to use this study as standalone proof of the relationship between these two variables; however, this study can be used to support the existing literature that identifies the important relationship between expressive suppression and stress or negative emotional experiences (Koval et al., 2015; Szczygieł & Maruszewski, 2015; Szabo et al., 2012).

Despite the weak performance measures, this finding addresses the core questions in this research, which asks if there is a relationship between expressive suppression and stress and if the use of expressive suppression might cause a harmful increase in stress. As mentioned, this research will add to the literature that demonstrates a relationship between the two variables. The question of whether or not expressive suppression causes an increase in stress is not rigorously addressed in this research; however, this research could be an important starting point for future research in causation. The literature suggests that expressive suppression causes harmful workplace stress, and this study makes a small contribution to that claim by demonstrating the correlation between the two variables. The key problem with using these data to address causation is temporal precedence, which is the question of whether the expressive suppression comes first or if the perceived stress comes first. Future experimental studies could address this question by using stress as a control variable and separately using expressive suppression as a control variable. More on this point will be discussed in the future research section.

5.2 Research Question 2. Does being in the presence of a "superior" play a role in an individual's emotional responses?

The answer to Research Question 2 is yes. As stated in the results, the correlation coefficient between Expressive Suppression and Superior Effect is 0.106, and the p-value is 0.036. With a significance level of 5%, the null hypothesis is rejected, and this study concludes that the presence of a superior is related to a higher usage of expressive suppression. As with the results in Research Question 1, the performance measures here are rather weak. Also, as with the conclusion in Research Question 1, these results should not be left as standalone proof, and future research is necessary. There are a few interested findings related to the superior effect that will be discussed in the following sections and suggest that understanding the superior effect variable could be promising future research; specifically, that the superior effect is correlated with stress and with the time effect. These two correlations are the strongest bivariate effects found in this study. The correlation between stress and the presence of a superior could be especially promising future research because it would seem that the presence of a superior could be easily defined as the cause of stress given that stress is not likely to cause the appearance of a supervisor. Also, the correlation between time pressures and the superior effect shows possible compounding sources of stress in corporate America that are worthy of future research.

5.3 Research Question 3. Does time pressure play a role in an individual's emotional responses?

The results here indicate that the answer to Research Question 3 is no. The relationship between the time effect and expressive suppression is not significant, and the null hypothesis is not rejected. Thus, it could in fact be true that time pressure is not a factor in an individual's use of expressive suppression. However, similar to Research Question 2, there are interesting findings in this study that suggest future research on the emotional impact of time pressure could lead to important results; namely, that time pressure is related to perceived stress and that time pressure is related to the superior effect. Both of these findings will be discussed in more detail.

5.4 Perceived Stress is Correlated with Many Variables

This research finds that perceived stress level is correlated with all of the variables studied, and this finding is noteworthy because the causes and effects of stress are a key part of research related to emotional responses. This study aims to address the question of the relationship between stress and effective suppression and the role that supervisors and time pressures might play in that dynamic. But a value point of this type of research is assessing factors that cause or alleviate stress. Therefore, these findings will be discussed as a small contribution to future research in this field. Each of the four studied variables (expressive suppression, reappraisal score, superior effect, and time effect) will be discussed briefly.

As previously noted, perceived stress is correlated with expressive suppression, and this finding adds to the literature. Although the weak correlation found here would make it difficult to use this study as standalone proof of the relationship between perceived stress and expressive suppression.

The correlation between perceived stress and reappraisal score found here is an important, noteworthy finding. This study demonstrates, and discusses the implications of, a *positive* correlation between stress and expressive suppression, but the *negative* correlation between stress and cognitive reappraisal is an important complimentary finding. These two findings indicate that participants who engage in expressive suppression experience more perceived stress, but participants who engage in cognitive reappraisal experience less perceived stress.

This finding is relevant to the conclusions this study because the cognitive reappraisal reaction could have affected the correlation result between stress and expressive suppression. It appears that some participants in this study favored cognitive reappraisal over expressive suppression and thus engaged less in expressive suppression in the course of stressful situations. If this is true, then it could partially explain the weak correlation between stress and expressive suppression. Certain participants in this study might have managed stress with a different reaction, which lowers the association between stress and expressive suppression. Note that if the causation assumption is reversed, it could be said that these participants engaged less in stress-inducing expressive suppression. Future research could attempt to find a more accurate correlation coefficient with an experimental study. This future research could study the effect of expression suppression when used by all participants, including those participants who would normally favor cognitive reappraisal. This type of research would illustrate the true strength of the relationship between perceived stress and expressive suppression.

Lastly, the noteworthy correlation between stress and the presence of a superior as well as the correlation between stress and time pressure indicate that both the presence of a superior and time pressure play an important role in stress and are worthy of future research. This study finds that these two factors play either a small role or no significant role in expressive suppression. However, the role that these factors play in overall stress is an important consideration that could be useful in helping individuals decrease workplace stress.

5.5 Superior Effect and Time Effect Strongly Correlated

The last noteworthy conclusion found in this research is the high correlation between the presence of a superior and time pressure. As discussed in the literature review, business professionals face stressful environments in corporate America, and the findings here support that statement; the superior effect and the time effect were the two variables with the highest correlation with stress. Not only that, but there appears to be a strong likelihood that professionals may simultaneously face *both* the stressful presence of a superior *and* stressful time pressure. Future experimental studies may wish to test the effect of expressive suppression and/or cognitive reappraisal on individuals facing these multiple sources of stress. This future research could be especially valuable if these two sources of stress are found to have a compounding effect; in other words, the presence of a superior might lead to even more stress if combined with time pressure (as compared to the effect of a superior's presence by itself).

6. Limitations

The key limitation in this research is the lack of evidence that expressive suppression causes stress; the two additional limitations are the weak correlation coefficient between expressive suppression and perceived stress and the weak correlation coefficient between expressive suppression and the presence of a superior. While this research does contribute to demonstrating a relationship between expressive suppression and stress, addressing the question of causation would add more value to the field of emotional intelligence. If expressive suppression causes stress, then business profesionals could be better advised on decreasing stress. Researchers might actually find the reverse causation – that stress comes first and then causes expressive suppression. This would be a very interesting and useful finding; it would imply that expressive suppression is less harmful than the previous literature indicates and that stress and the actual cause of the stress should be addressed first and foremost. That of course would lead to an important search for the other causes of stress. Lastly, research into causation might find that neither variable causes the other, the correlation coefficient merely represents an association and that both expressive suppression and stress are caused by a third variable (or perhaps several other variables). Based on the literature, this last outcome seems unlikely, but nonetheless, the research in this study is limited in that the question of causation is not addressed.

The two additional limitations in the study are the weak correlation coefficients between expressive suppression and (individually) stress and the presence of a superior. As discussed in the conclusion, it would not be appropriate to use these correlation coefficients as standalone proof of the two individual relationships; instead, the results here add to the existing literature. In the case of the correlation between expressive suppression and stress, these results support other research that already illustrates this important finding. In the case of the correlation between expressive suppression and the presence of a supervisor, the findings here will inform future research and encourage study of the supervisor dynamic despite the limitation of the low correlation in this particular study.

7. Future Research

As mentioned multiple times above, the question of whether or not expressive suppression causes stress is a promising area of future research that might ultimately help individuals decrease stress. While this study merely observes a relationship between expressive suppression and stress, future research could design experimental studies with stress and/or expressive suppression as the control variables. The manipulation of these control variables could illustrate if expressive suppression causes stress, if stress causes expressive suppression, or if neither variable causes the other. These types of experimental studies could lead to better ways of decreasing stress once more information about the causes of stress are understood.

An exciting opportunity for future research, and a relatively unstudied dynamic, is the role of a supervisor in expressive suppression; additionally, the strong correlation between supervisor presence and time pressure suggests promising research opportunities. The additional stress that might be caused by the presence of a supervisor, and the potentially harmful expressive suppression reactions, could be invaluable future research that could illustrate ways to decrease stress in corporate environments. This future research could be especially powerful because supervisor presence could be an easy control variable to manipulate in experimental studies (researchers could simply include or exclude a supervisors in a controlled situation) and because of the relative ease of proving that supervisor presence was the cause of stress (it would be difficult to argue that stress could cause a supervisor to appear, so researchers could quickly isolate the supervisor as the cause of stress found in these types of experimental studies). Lastly, the strong correlation between supervisor presence and time pressure poses an interesting avenue for research. This study shows that individuals in corporate America are likely to face both types of stress at the same time. Future research could address the possible compounding effect of these stress factors. For example, researchers could study whether the effect of supervisor presence is linear or if the stress effect of a supervisor is greater when an individual is facing time pressure simultaneously. Such an interaction effect might indicate dangerous combinations of stress that could, and perhaps should, be avoided in corporate America.

The final area of future research that will be discussed here is research that could filter out the effect of cognitive reappraisal and find a more accurate relationship between expressive suppression and perceived stress. As noted, the relatively large, and negative, correlation between cognitive reappraisal and stress suggests that some (but not all) participants were likely to use cognitive reappraisal as an alternative to expressive suppression when dealing with stress. If these same subjects had used expressive suppression, then it might have led to more stress. Future research should examine the effect of expressive suppression on all subjects, not just those subjects who already favor the use expressive suppression. An experimental study could find a more accurate correlation coefficient by controlling the use of expressive suppression and testing the resulting stress effect on all subjects.

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