

Strongest Emotional Reactions to Being Told to Smile by a Stranger?

Surprise, Anger, and Disgust

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Abstract

Previous research has established that people are frequently asked or told by strangers to smile. Women are asked/told more than men. Men ask/tell more than women. Despite this topic receiving a lot of attention in popular culture, no empirical research was found that assessed the emotional reactions of people who are asked/told to smile. In this study, participants who had been asked/told to smile reported their emotional reactions to the most recent smile solicitation, using measures of Robert Plutchik's eight basic emotions. Anger, disgust, and surprise were the strongest emotions, and significantly stronger than all other emotions, both when recalling emotional responses during the incident and current reactions. No positive emotion was reported as strongly experienced, either then or now, consistent with social media and pop cultural portrayals of reactions to smile solicitations. Men's positive emotional responses to smile solicitations, both then and now, were stronger than women's, whereas women's negative emotional responses to smile solicitations, both then and now, were stronger than men's. This pattern is consistent with the popular culture narrative that women experience smile solicitation as sexual harassment. (181 words.)

Strongest Emotional Reactions to Being Told to Smile by a Stranger?

Surprise, Anger, and Disgust

Smile solicitation has been defined as one person asking or telling another person to smile. Past research suggests that more women are told to smile than men, and that more strangers tell women to smile (Heesacker et al., 2017a; Heesacker et al., 2017b; Moriarty et al., 2017). Smile solicitation has not been found to be related to social dominance theory (Samson et al., 2018). I aim to understand the emotional reactions of people being told to smile by strangers, and how those reactions may change from a first impression to a later reflection.

This project began the spring semester of my second year at the University of Florida. During a Psychology of Personality lecture, a student brought up the topic of men telling women to smile. Most of the women in the class had heard of this, if not experienced it themselves. However, Dr. Heesacker, the instructor, had not even heard of this phenomenon before. He then decided to start a research group dedicated to learning more about this particular form of social influence, and I decided to join. Four other students and I, along with Dr. Heesacker, created the Smile Research Group. After some initial research into smile solicitation, I decided that I wanted to write my senior thesis on a related topic. So, I am investigating the relationship between emotions experienced during a smile solicitation event, and the emotions experienced while recalling that event. I chose this topic because I have been told to smile in the past, and my emotional reactions in the moment were different than my feelings later, after time for reflection.

A related concept to smile solicitation is the *resting bitch face* (RBF). This is “a term used to describe women whose regular facial features can make them appear unhappy or unemotional—a malady ascribed to women but not men” (Allen, French, & Poteet, 2016, p. 2016). It is a notable condition detectable in many female faces, even among celebrities: “When

[Anna Kendrick] was younger directors would say, ‘Why don’t you smile more, you need to smile more, you don’t seem like you’re very happy’” (Gibson, 2016). Other concepts related to socially-acceptable subordination of women include street harassment, emotional labor, and the concept of mental load. Smile solicitation resembles the definition of “non-contact unwanted sexual experiences” defined by the Centers for Disease Control as “someone harassing the victim in a public place in a way that made the victim feel unsafe” (Smith et al., 2017, p. 17). Emotional labor is “where the worker manages feelings and expressions to help the organization profit” (Grandey, Diefendorff, & Rupp, 2013, pg. 3), and can be extrapolated to relationship maintenance and house work. The concept of mental load is defined as “the many—and extremely varied—tasks that are involved in managing a household” (Anzia, 2017).

Literature Review

There is very little previous research on the specific area of smile solicitation emotionality. It is occasionally mentioned in introductions, like “the public has been informed [...] that it is not okay to ask women they do not know to ‘smile’” (Allen, French, & Poteet, 2016, p. 206). What research there is focuses on dentistry (Machado, Duarte, da Motta, Mucha, & Motta, 2016), how smiling affects facial attractiveness (Shields, Morse, Arrington, & Nichols, 2017), comparing Duchenne and non-Duchenne smiles (Andrzejewski & Mooney, 2016), and how smile size affects perceptions of warmth and competence (Wang, Mao, Li, & Liu, 2017).

Research presented at professional conferences by Dr. Martin Heesacker’s Smile Group has identified some important results about smile solicitation. In a study of 583 college students, 95% of women were told/asked to smile, compared to 77.5% of men. Additionally, 67.5% of men told/asked another to smile, while only 48.5% of women did (Moriarty et al., 2017).

Another result of that study was that 48.7% of women reported low familiarity with the person who told them to smile, compared to 7.1% of men (Heesacker et al., 2017b).

A study of dentists, orthodontists, and laypeople judged whether the amount of gingival (gum) exposure and location of incisors impacted smile attractiveness. This study concluded that orthodontists had the most homogenous preferences, likely because of their education on smile esthetics. The highest scoring smiles had gingival exposure. Additionally, these smiles were considered younger and more attractive (Machado et al., 2016).

A study of the attractiveness of facial expressions and emotionality concluded that more highly attractive people were rated more attractive and happy when smiling. Low attractiveness people were rated higher in happiness, but not attractiveness, when smiling (Shields et al., 2017).

One way restaurants and stores try to inspire customer satisfaction is to provide service with a smile. A study measured reactions to Duchenne vs. non-Duchenne smiles of service providers. Male service providers displaying a Duchenne smile were rated more competent than female service providers. However, female service providers displaying a non-Duchenne smile were rated more competent than their male companions, and were perceived as warmer, regardless of their smile type. In general, women smile more and are considered more emotionally expressive than men (Andrzejewski & Mooney, 2016). A study of how smile intensity affects perceptions of warmth and competence concluded that a broad smile has a higher perception of warmth, compared to a slight smile, but the slight smile was judged more competent (Wang et al., 2017).

Although there is no scientific literature to be found on smile solicitation specifically, there is widespread recognition in social media and pop culture, such as in TV shows (Glazer & Jacobson, 2015), art projects (Culp-Ressler, 2013), online articles (Zimmerman, 2015), books

(LaFrance, 2011), and YouTube videos (Fannin, 2013; Weinberg, 2014). The Comedy Central TV show *Broad City* (2014-present) depicts an instance of smile solicitation in “St. Mark’s”, the tenth episode of the second season. The two main characters, Abbi and Ilana, live in New York and are going to a party. While they are walking down the sidewalk, a man walks by and tells the two women, “You girls are so pretty. You should smile” (Glazer & Jacobson, 2015, 1:17). Abbi and Ilana both react by using their middle fingers to push up their lips into a smile.

This kind of pervasive street harassment is addressed in an art project entitled *Stop Telling Women to Smile*. Created by Brooklyn-based artist Tatyana Falalizadeh, her street art installation is composed of portraits of women, captioned with responses to street harassment. These captions include “stop telling women to smile”, “harassing women is not amusing”, and “I am not a public space” (Fazlalizadeh, 2012).

In the YouTube video *Smile*, produced by The Get Go, a woman eating lunch on a park bench is told to smile by the man sitting next to her. He said, “I just think you’d look pretty with a smile. All women do” (Weinberg, 2014, 0:11). The woman then sarcastically calls out to the rest of the women in the park, “A random man has life advice!” (Weinberg, 2014, 1:02), who then surround him. The video concludes with the man responding to all the women around him, “Do whatever the hell you want with your faces. They’re your faces!” (Weinberg, 2014, 2:26). The video *Bitchy Resting Face*, produced by Broken People, is a satirical infomercial, which describes the condition of Bitchy Resting Face as someone “looking thoughtfully sad or angry, for no reason” (Fannin, 2016, 0:06). Both of these videos, while exaggerated, portray scenarios that are familiar to many women.

Several non-academic articles and threads mention smile solicitation, emotional labor and the expectation to smile at men. One article on the website The Toast, “‘Where’s My Cut?’: On

Unpaid Emotional Labor” (Zimmerman, 2015), spawned a subsequent MetaFilter thread discussion (MetaFilter, 2015). In this article, the author Jess Zimmerman talks about her experience of emotional labor and how it is not considered to have any monetary value. She also discusses how women should be paid for the work they do, including the emotional labor of listening to men’s problems. “People are disturbed by the very notion that someone would charge, or pay, for friendly support. It’s supposed to come free.” (Zimmerman, 2015).

In the discussion board post hosted on MetaFilter, one commentator with the screen name “fiendish thingy” mentions the expectation to smile at a man was brought up in her performance review, when she was told smile at a male coworker when he walked by. She said, “‘hey girl, give me a smile’ was an unspoken part of my job requirements” (MetaFilter [fiendish thingy], 2015). Smile solicitation is specifically mentioned in the book *Why Smile*: “Men expect women to smile and women know that men expect them to smile [...] informal expectations mutate into rules, from ‘It’s nice to see a woman smile,’ to ‘There’s something wrong when a woman won’t smile’” (LaFrance, 2011, p. 191).

Because there is a dearth of published research in this area, I decided to keep my hypotheses simple. Hypothesis 1 is that negative emotions will be significantly stronger than positive emotions, for both reactions at the time and current reactions. Hypothesis 2 is that self-reported reactions at the time will be more strongly negative than present emotions.

Method

Participants

This survey was taken by 305 undergraduate students at the University of Florida. The participants were recruited from two large, undergraduate psychology classes, and were offered up to 1% extra credit for taking the survey. Unsurprisingly, 93.99% of respondents were between

18-24 years old, the typical age of college students. Female respondents accounted for 82.69% of the sample, with 16.96% male, and 0.35% other (only one person identified as other). Nearly ninety percent (89.08%) of respondents reported that they were heterosexual, and 63.38% of the sample identified themselves as white. Just over fifty percent (51.94%) of respondents achieving some college as their highest education level, and 28.27% reported having earned an associate's degree. Single (never married) respondents were 59.01% of the sample. Democrats made up 39.72% of the sample, followed by 21.99% No Party, 20.92% Republican, 14.54% Independent, and 2.84% Other.

Materials and Procedure

The survey was hosted on Qualtrics (see Appendix C) and asked participants if a stranger had ever told them to smile. If they answered yes, they were then asked the gender of the stranger, when the incident occurred, a description of the incident, the emotions the participant felt in that moment, and how they feel now. The emotions were randomly ordered for each participant. The emotions were based on Plutchik's eight basic emotions (1962), which include joy, sadness, trust/acceptance, disgust, fear, anger, surprise, and anticipation. The intensity of the emotions was measured via a 7-point Likert scale, from 1 = *strongly disagree* to 7 = *strongly agree*.

Data Analysis

Hypothesis 1, which predicts that negative emotions will be significantly stronger than positive emotions for both times, was tested with two within-subjects, one-way analyses of variance (ANOVAs), one for original emotional reaction and a second for the current emotional reaction. In each analysis, the eight basic emotions will serve as the within-subjects variable. Hypothesis 2, which predicts emotions at the time of the event will be more strongly negative

than present emotions, was tested with eight dependent *t*-tests, one for each of the eight emotions, with time (reaction at the time vs. current reaction) serving as the independent variable.

Results

Out of 305 total responses, 208 people answered Question 4, which asked for details about the smile solicitation. These answers were sorted by independent judges from the Smile Research Group, into the categories *No Event*, *Not Qualified*, and *Valid Event*. This is an example of No Event: “I don’t think this has ever happened to me.” This is an example of Not Qualified: “This kind of thing has happened to me quite a few times”, followed by no details about a specific incident. This is an example Valid Event: “Yesterday at about lunchtime, some strange guy comes right up to me and says ‘You’d look so much prettier if you’d smile.’” Of the 208 answers to Question 4, 144 (69.23%) were judged as valid events and 79.62% of participants said that they were asked to smile by a stranger. The author and another independent judge sorted the answer into categories, with an inter-rater agreement of 88.19%. Disagreements were resolved by Dr. Heesacker (see Appendix B for means, standard deviations, and bivariate correlations of study variables and Appendix C for a copy of the survey).

Hypothesis 1

Hypothesis 1 predicted that the negative emotional reactions will outweigh positive emotional reactions. This hypothesis was supported. The three strongest self-reported emotional responses about the past were negative (anger, disgust, and surprise), $F(7,1449) = 3.31, p < .002$, partial eta squared (η^2_p) = .053 (almost a medium-sized omnibus effect; Cohen, 1988 defined small as $\eta^2 = 0.01$, medium as $\eta^2 = 0.06$, and large as $\eta^2 = 0.14$). The same pattern occurred with present emotional reactions where, again, anger, disgust, and surprise were the strongest

emotions, $F(7,1447) = 9.00, p < .001, \eta^2p = .041$ (a small to medium-sized effect). In both cases, anger, disgust, and surprise and were significantly stronger than the other emotions. The positive emotions trust/acceptance and joy were the lowest rated in each conditions. Fear moved from the fourth position in the past condition to the eighth position in the present condition. So participants reported being fearful at the time of the incident, but not fearful in recalling the incident later (see Appendix A, which includes Figure 1 for *then*-emotions, Figure 2 for *now*-emotions, and Figure 3 for a comparison between the two conditions).

Hypothesis 2

Hypothesis 2 predicted that emotional reactions would differ as a function of whether participants were recalling their reactions at the time (“*then*-emotions”) vs. reporting their current reactions to the smile solicitation (“*now*-emotions”). The notion is that self-reported emotions are likely to show a decay effect, that is become less intense from initial reaction to current reaction. *Then*-emotions, from strongest to weakest by mean, are surprise, anger, disgust, sadness, fear, anticipation, trust/acceptance, and joy (see Figure 1). The *now*-emotions, from highest to lowest mean, were anger, disgust, surprise, sadness, anticipation, trust/acceptance, joy, and fear (see Figure 2). Eight dependent *t*-tests revealed that sadness, trust, and disgust did not significantly differ as a function of now vs. then. Only surprise dramatically declined from reaction at the time to current reaction, $t(215) = 10.91, p < .0001$, at-the-time mean = 4.64 (1.70) vs. current mean = 3.42 (1.82), with sadness, anger, and surprise also declining, but less dramatically (t 's = 2.71 to 4.61, all p 's < .05). Only joy showed a significant *increase* from at-the-time to current emotion, and the effect was small, $t(216) = -2.02, p < .05$, at-the-time mean = 2.30 (1.53) vs. current mean = 2.44 (1.62). Correlations between at-the-time emotional reactions and current and current reactions ranged from $r = 0.49$ for surprise to 0.81 for joy (n 's = 216-

219, all p 's < .0001). For four emotions, there was over 50% overlap of at-the-time with current reactions: disgust ($r = 0.82$), joy ($r = 0.81$), anger ($r = 0.79$), and trust ($r = 0.76$), suggesting only moderate emotional decay over time.

Ancillary Data

There is an interaction effect between gender and emotions, in both the *then* condition and the *now* condition. In the *then* condition, men who were told to smile by a stranger reported similar levels of sadness and anticipation as women (Figure 4). Men also reported higher levels of joy and trust/acceptance than women. Women who were told to smile by a stranger reported higher levels of all other emotions (disgust, fear, anger, and surprise).

In the *now* condition, men reported higher levels of the positive emotions, joy and trust (Figure 5). Women reported higher levels of disgust and anger, and both genders reported similar levels of sadness, fear, surprise, and anticipation, although women reported slightly higher levels of sadness, disgust, and anger.

Discussion

This study generally confirms what has been expressed online and through popular culture, namely that women have negative reactions to being told to smile. This is the first investigation which systematically asked about emotion responses and surveyed across all eight basic emotions. There is very little evidence that these negative emotions fade over time, because the intensity of *then* emotions is largely the same as *now* emotions, especially anger and disgust (see Figure 3). It was interesting to learn that participants were not particularly fearful when solicitations occurred, but that they were surprised. Not all negative emotions were at the same level. Although all people, men and women, showed a general tendency, it was most pronounced among women.

Hypothesis 1 states that negative emotions will be stronger than positive emotions. These results suggest that being told to smile is a negative experience, as anger, disgust, and surprise were participants' strongest three emotions both *then* and *now*.

Hypothesis 2 states that the emotions of the *then* condition and the *now* condition will not be equal. The *then* condition and the *now* condition order the emotions differently, with different means, so it is concluded that the emotions are not equal across both conditions.

Prior research from the Smile Group indicates that the overall rate of smile solicitation was 95% of women and 77.5% of men were asked/told to smile. Sixty-seven point five percent of men asked/told others to smile, while only 48.5% of women asked/told others to smile (Moriarty et al., 2017).

This study's originality comes with both strengths and weaknesses. It is the first survey to find the interactions between emotional reactions and smile solicitation. However, this means there is no previous research to rely on, besides our own. Another strength is that there is a relatively large sample of subjects. But a limitation is that the majority of the participants are undergraduate students, who are mostly white and upper-middle class. For future research, we could survey a nationally representative sample of the population. Lastly, this study needs replication before we can generalize the effect.

Directions for future research include further narrowing the research question in order to focus only on strangers. Many people wrote that a family member (usually their mother) or a friend told them to smile. Another type of incident to be eliminated in future research is smiles solicited by photographers paid to photograph the participant or the event. Future research should limit the responses to those focused on a stranger telling someone to smile in a public space, excluding photographers hired to commemorate events.

Another avenue for future research is an experiment in which treatment-group participants are brought into the lab and solicited by a confederate to smile, with their emotional reactions recorded before and after, and compared to a control group. This and other studies should study a wider range of people, with more variation in sexual orientation and race, more men, and a wider age range.

Smile solicitation appears to represent a form of sexual harassment, similar to catcalling. This research doesn't prove smile solicitation is harassment, but the pattern of affective responses for women vs. men is consistent with what one might predict if smile solicitation shares a category with catcalls and other lower-level sexual harassments. Future research will need to be conducted to establish whether smile solicitation constitutes sexual harassment.

An implication for this study is that people, but especially men, need to be educated about the clearly-negative reactions participants had to being told to smile. Perhaps people engage in smile solicitation without realizing that it evokes immediate and sustained negative reactions. People, again especially men because they do most of the soliciting, need to be educated that this initially negative reaction persists over time, with only moderate decay in the intensity of anger and disgust over time. This is a sustained, not just immediate, reaction to being told to smile. Because the men in this sample did not experience negative emotions as strongly, and experienced positive emotions more strongly, they may underestimate the negative impact of smile solicitation on women.

People, especially women, who experience smile solicitation should have their negative reactions normalized. That is, they should be made aware that responding with anger, disgust, and surprise is a typical reaction, and that they are not alone or unusual for responding that way. Additionally, therapists need to be aware that a normal response to smile solicitation is disgust,

anger, and surprise, so that therapists do not inadvertently pathologize what appears to be a typical reaction to these kinds of behaviors. The results of this study suggest that people should think before they tell others, especially women, to smile.

References

- Allen, T. D., French, K. A., & Poteet, M. L. (2016). Women and career advancement: Issues and opportunities. *Organizational Dynamics*, 45, 206-216.
doi:<https://doi.org/10.1016/j.orgdyn.2016.07.006>
- Andrzejewski, S. A., & Mooney, E. C. (2016, March). Service with a smile: Does the type of smile matter? *Journal of Retailing and Consumer Services*, 29, 135-141.
doi:<https://doi.org/10.1016/j.jretconser.2015.11.010>
- Anzia, N. (2017, October 17). Make your 'mental load' easier to manage. *The Washington Post*.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic.
- Culp-Ressler, T. (2013, September 12). *'Stop telling women to smile' project tackles gender-based harassment with street art*. Retrieved from Think Progress:
<http://thinkprogress.org/health/2013/09/12/2614421/stop-telling-women-smile/>
- Fannin, B. [Broken People]. (2013, May 22). *ORIGINAL VIDEO - Bitchy Resting Face*. [Video file]. Retrieved from <https://www.youtube.com/watch?v=3v98CPXNiSk&t=3s>
- Fazlalizadeh, T. (2012). *Stop telling women to smile*. [Street art]. Brooklyn: NY. Retrieved from [http://www.tlynnfaz.com/Stop-Telling-Women-to-Smile /](http://www.tlynnfaz.com/Stop-Telling-Women-to-Smile/)
<http://stoptellingwomentosmile.com/>
- Gibson, C. (2016, February 2). Scientists have discovered what causes resting bitch face. *The Washington Post*.
- Glazer, I., & Jacobson, A. (2015, March 17). St. Mark's. *Broad City*. Comedy Central.
- Grandey, A., Diefendorff, J. M., & Rupp, D. E. (Eds.). (2013). *Emotional labor in the 21st century: Diverse perspectives on the psychology of emotion regulation at work*. New

- York, NY: Routledge Academic. Retrieved from <https://www.taylorfrancis.com/books/e/9781136232596>
- Heesacker, M., Moriarty, C. R., Samson, G. D., Jess, K. E., Giampietro, A. M., & Ferguson, H. N. (2017, April). Gender Differences in Smile Solicitation. [Poster]. *Great Lakes Counseling Psychology Conference*. Muncie, IN: University of Florida.
- Heesacker, M., Samson, G. D., Moriarty, C. R., Giampietro, A. M., Ferguson, H. N., & Jess, K. E. (2017, May). Smile solicitation: An under-examined form of social influence. [Poster]. *29th Association for Psychological Science Annual Convention*. Boston, MA: University of Florida.
- LaFrance, M. (2011). *Why smile? The science behind facial expressions*. New York, NY: W.W. Norton & Co. (Also published as *Lip service: Smiles in life, death, trust, lies, work, memory, sex, and politics*.)
- Machado, R. M., Duarte, M. E., da Motta, A. F., Mucha, J. N., & Motta, A. T. (2016, September). Variations between maxillary central and lateral incisal edges and smile attractiveness. *American Journal of Orthodontics and Dentofacial Orthopedics*, *150*(3), 425-435. doi:<https://doi.org/10.1016/j.ajodo.2016.02.022>
- MetaFilter. [sciatrix]. (2015, July 15). "Where's my cut?": On unpaid emotional labor. [Forum thread]. Retrieved from <https://www.metafilter.com/151267/Wheres-My-Cut-On-Unpaid-Emotional-Labor>
- Moriarty, C. R., Samson, G. D., Jess, K. E., Giampietro, A. M., Ferguson, H. N., & Heesacker, M. (2017, April 13). Smile solicitation: Gendered social influence. [Poster]. *Psychology Undergraduate Research Forum*. Gainesville, FL: University of Florida.

- Plutchik, R. (1962). *The emotions: Facts, theories, and a new model*. New York, NY: Random House.
- Samson, G. D., Heesacker, M., Moriarty, C. R., Jess, K. E., Ferguson, H. N., & Giampietro, A. M. (2018). *Social dominance and smile solicitation by strangers*. Poster presented at the annual Psychology Undergraduate Research Forum. Gainesville, FL: University of Florida.
- Shields, S. M., Morse, C. E., Arrington, P., & Nichols, D. F. (2017, June). Exploration of the influence of smiling on initial reactions across levels of facial attractiveness. *American Journal of Undergraduate Research*, 14(2), 65-79.
- Smith, S.G., Chen, J., Basile, K.C., Gilbert, L.K., Merrick, M.T., Patel, N., Walling, M., & Jain, A. (2017). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012 State Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Wang, Z., Mao, H., Li, J., & Liu, F. (2017, February). Smile big or not? Effects of smile intensity on perceptions of warmth and competence. *Journal of Consumer Research*, 43(5), 787-805. DOI: 10.1093/jcr/ucw062
- Weinberg, J. [The Get Go]. (2014, September 4). *Smile*. [Video file]. Retrieved from <https://www.youtube.com/watch?v=2TmscdapDHg>
- Zimmerman, J. (2015, July 15). *"Where's my cut?": On unpaid emotional labor*. Retrieved from <http://the-toast.net/2015/07/13/emotional-labor/>.

Appendix A

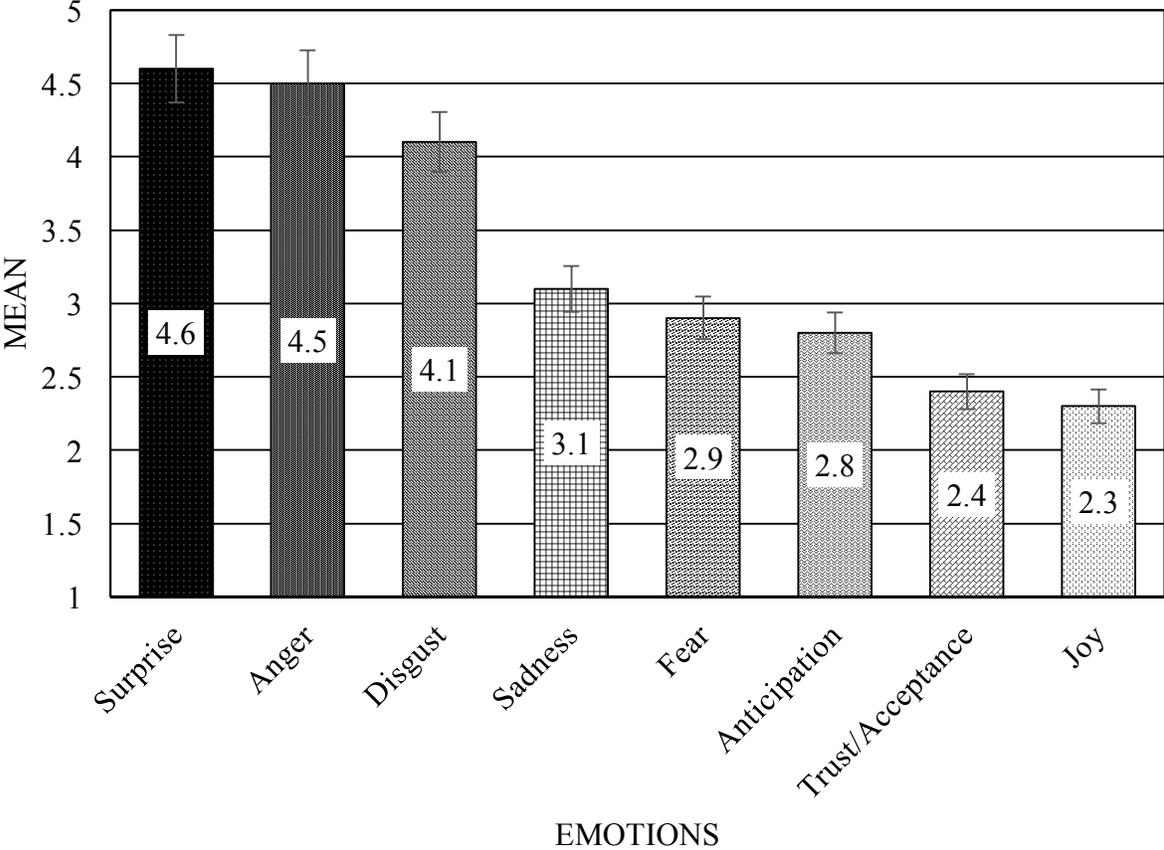


Figure 1. Then-Emotions. Emotion means from the then-condition.

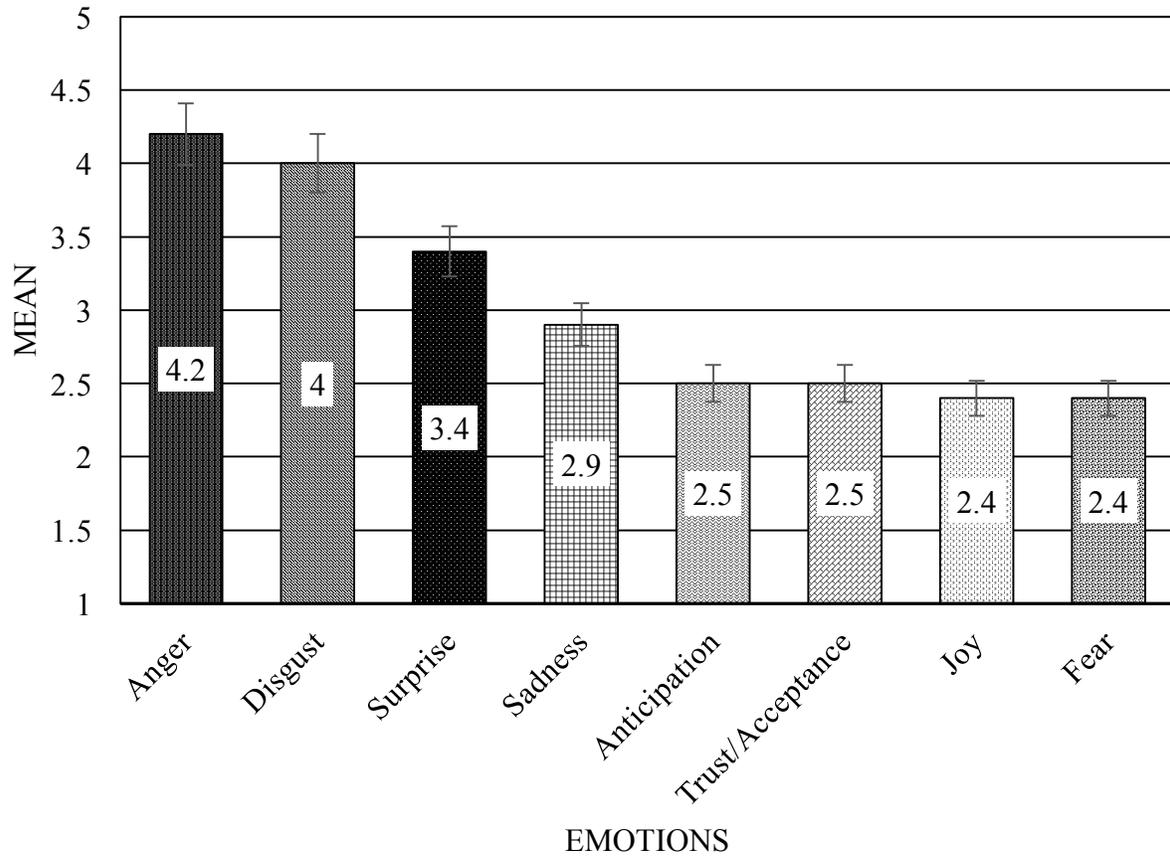


Figure 2. Now-Emotions. Emotion means from the *now*-condition.

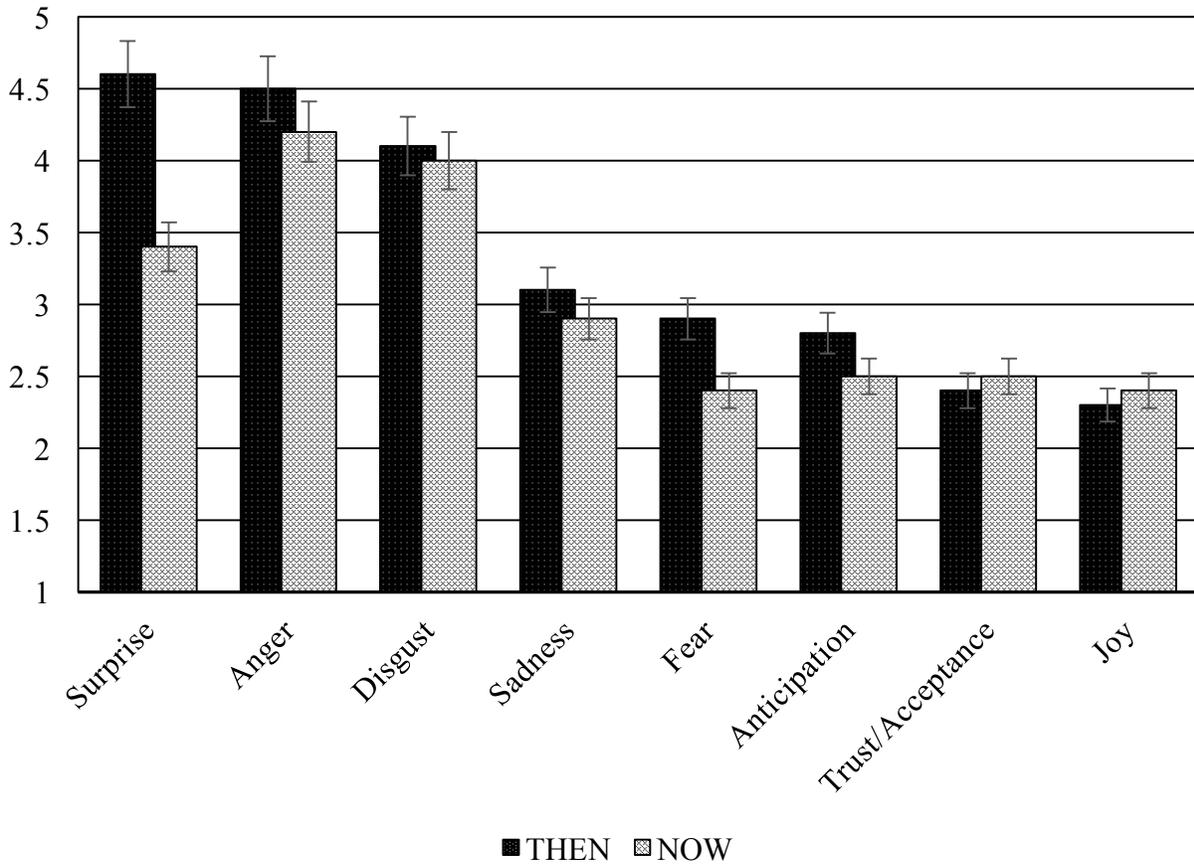


Figure 3. Then vs. Now Emotions. A comparison of emotion means from both the *then*- and *now*-conditions.

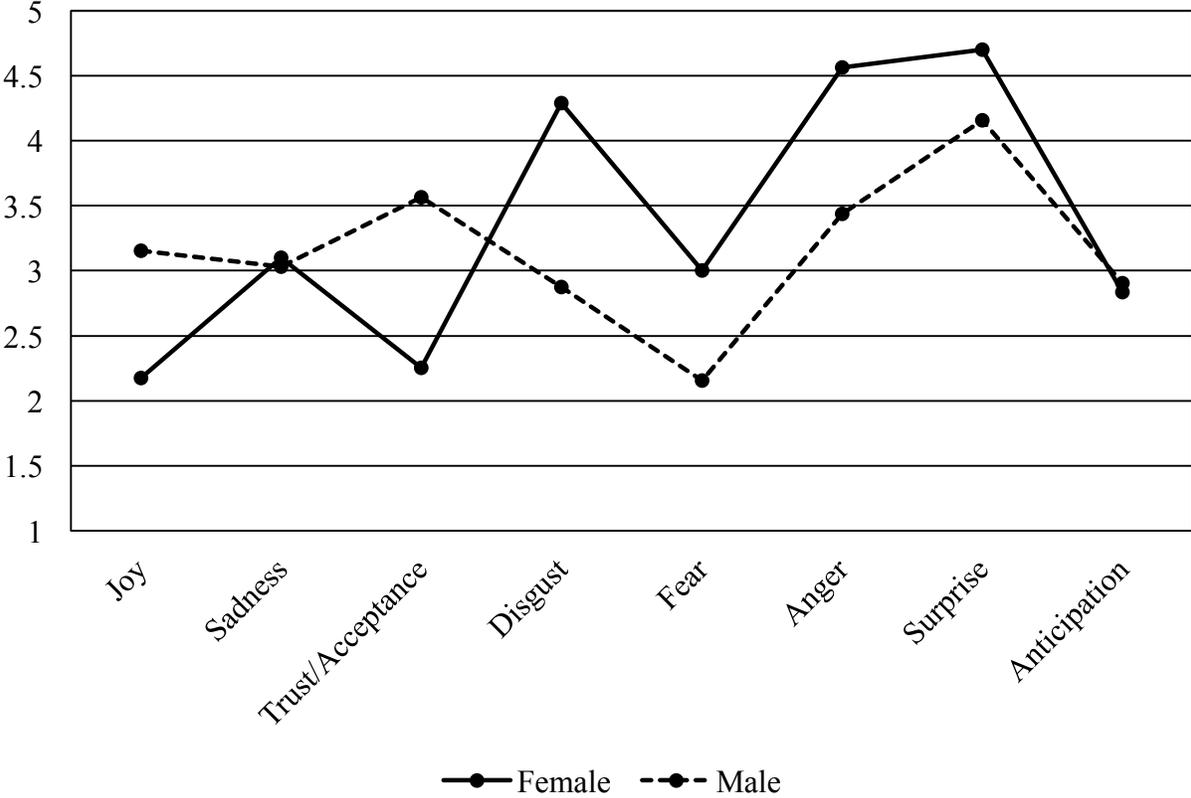


Figure 4. Gender * Then-Emotion. A comparison of emotion means in the *then*-condition between genders.

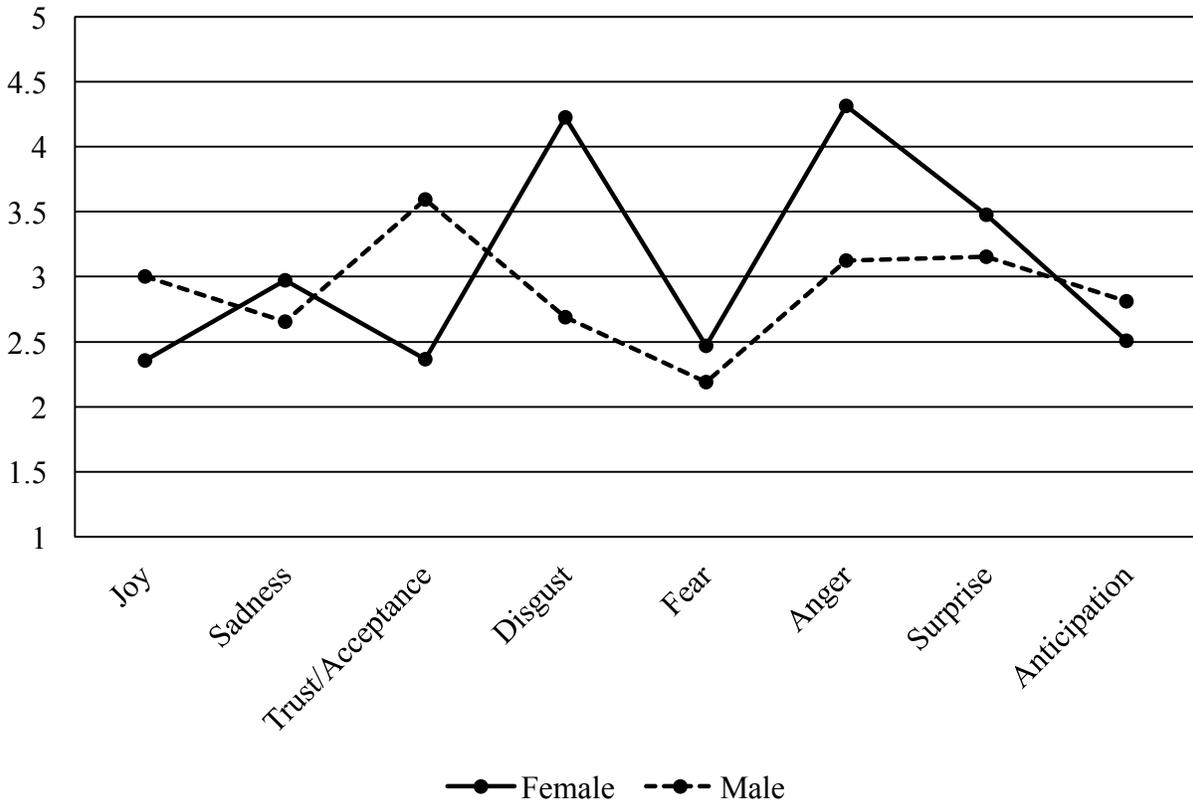


Figure 5. Gender * Now-Emotion. A comparison of emotion means in the *now*-condition between genders.

Appendix B

Table 1		Study Variables (Part 1). The means, standard deviations, and correlations between variables.								
Variables	Mean	SD	Joy Then	Sad Then	Trust Then	Disgust Then	Fear Then	Anger Then	Surprise Then	Anticipation Then
Joy Then	2.31	1.528	1							
Sad Then	3.08	1.654	-.152*	1						
Trust Then	2.44	1.577	.779**	.006	1					
Disgust Then	4.13	1.981	-.511**	.215**	-.511**	1				
Fear Then	2.89	1.734	-.204**	.393**	-.177**	.379**	1			
Anger Then	4.43	1.877	-.584**	.259**	-.543**	.705**	.296**	1		
Surprise Then	4.64	1.700	.016	.118	.005	.097	.116	.052	1	
Anticipation Then	2.86	1.590	.267**	.178**	.243**	.004	.216**	-.089	.001	1
Joy Now	2.44	1.617	.810**	-.065	.757**	-.463**	-.142*	-.519**	.035	.265**
Sad Now	2.94	1.684	-.183**	.559**	-.114	.288**	.401**	.322**	.191**	.170*
Trust Now	2.53	1.706	.683**	.020	.761**	-.462**	-.152*	-.467**	-.062	.243**
Disgust Now	4.00	2.079	-.507**	.223**	-.502**	.822**	.407**	.640**	.214**	.012
Fear Now	2.44	1.524	-.103	.368**	-.126	.421**	.616**	.310**	.148*	.165*
Anger Now	4.14	2.099	-.564**	.216**	-.554**	.697**	.289**	.792**	.100	-.139*
Surprise Now	3.44	1.815	.133*	.128	.090	.098	.103	.027	.490**	.137*
Anticipation Now	2.59	1.537	.273**	.222**	.218**	.054	.172*	-.008	.029	.521**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2		Study Variables (Part 2). The means, standard deviations, and correlations between variables.								
Variables	Mean	SD	Joy Now	Sad Now	Trust Now	Disgust Now	Fear Now	Anger Now	Surprise Now	Anticipation Now
Joy Then	2.31	1.528								
Sad Then	3.08	1.654								
Trust Then	2.44	1.577								
Disgust Then	4.13	1.981								
Fear Then	2.89	1.734								
Anger Then	4.43	1.877								
Surprise Then	4.64	1.700								
Anticipation Then	2.86	1.590								
Joy Now	2.44	1.617	1							
Sad Now	2.94	1.684	-.116	1						
Trust Now	2.53	1.706	.781**	-.091	1					
Disgust Now	4.00	2.079	-.512**	.399**	-.510**	1				
Fear Now	2.44	1.524	-.029	.462**	-.048	.437**	1			
Anger Now	4.14	2.099	-.546**	.394**	-.509**	.759**	.371**	1		
Surprise Now	3.44	1.815	.210**	.258**	.106	.178**	.222**	.109	1	
Anticipation Now	2.59	1.537	.308**	.277**	.287**	.071	.374**	-.022	.156*	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Appendix C

Q1. Has a **stranger** ever told you to smile in some way? (e.g. “Smile!”, “Why aren’t you smiling?”, “Is something wrong? You’re not smiling.”, or “You’d look better if you’d smile.”)

- a) Yes
- b) No

Q2. What was the gender of the stranger who did this **most recently**?

- a) Female
- b) Male

Q3. When did this happen?

- a) Past week
- b) Past month
- c) More than 1 year ago

Q4. Please describe the incident. Include details about who asked you to smile, what happened, and where the incident occurred. [text box]

Q5. What emotions did you feel **at that moment**?¹

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Joy							
Sadness							
Trust/Acceptance							
Disgust							
Fear							
Anger							
Surprise							
Anticipation							

¹ Emotions were randomized for each participant.

Q6. What emotions do you feel **now** recalling that incident?²

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Joy							
Sadness							
Trust/Acceptance							
Disgust							
Fear							
Anger							
Surprise							
Anticipation							

D1. What is your age?

- a) Under 18
- b) 18-24
- c) 25-34
- d) 35-44
- e) 45-54
- f) 55-64
- g) 65-74
- h) 75-84
- i) 85 or older

D2. What is your gender?

- a) Female
- b) Male

² Emotions were randomized for each participant.

c) Other [text box]

D3. Do you identify as trans?

a) Yes

b) No

D4. What is your sexual orientation?

a) Heterosexual

b) Homosexual

c) Bisexual

d) Asexual

e) Other [text box]

D5. What is your race?

a) American Indian or Alaska Native

b) Asian

c) Black or African American

d) Hispanic or Latino

e) Native Hawaiian or Other Pacific Islander

f) White

g) Other [text box]

D6. Are you Hispanic or Latino/a/x?

a) Yes

b) No

D7. Are you a U.S. citizen?

a) Yes

- b) No

D8. What is your highest level of education completed?

- a) Less than a high school diploma
- b) High school degree or equivalent (e.g. GED)
- c) Some college, no degree
- d) Associate degree
- e) Bachelor's degree
- f) Master's degree
- g) Professional degree
- h) Doctorate

D9. What is your relationship status?

- a) Single (never married)
- b) In a relationship
- c) Married
- d) Separated
- e) Divorced
- f) Widowed

D10. What is your political party?

- a) Democrat
- b) Republican
- c) Independent
- d) No party
- e) Other [text box]

D11. How did you learn about this survey?

- a) Class
- b) Internet
- c) Amazon's MTurk program
- d) Other [text box]