

Running Head: Sex Differences, Positive Emotion, and Appraisal Theory

Sex Differences in Positive Emotions within Appraisal Theory

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Abstract

The psychological study of positive emotions is a relatively new and underdeveloped area of inquiry (Ellsworth & Smith, 1988; Fredrickson, 1998). However, research shows that positive emotions have the capacity to be beneficial in many ways (Fredrickson, 1998; 2004). As such, this thesis aims to illuminate an area within positive emotions research that is underdeveloped: sex differences. This study examines sex differences in the understanding, experience, and expression of positive emotions. Our participants (N=108) responded to multiple questionnaires and surveys looking at affect, emotional differentiation abilities, appraisal style, emotional elicitors, and language surrounding positive emotions. Women and men exhibited equal ability to differentiate positive emotions. Women's positive emotion experiences were more tied into social experiences than were men's. Men experienced pride in response to a broader array of experiences than did women. Taken together, our findings suggest that there are some significant differences in the ways that women and men understand, experience, and express positive emotions.

### Sex Differences in Positive Emotions within Appraisal Theory

In our society, there is a broadly held belief that women are more empathetic and communicative than men. It so happens that these widely held societal notions about sex differences are backed by psychological research. Previous studies support the belief that women are more emotionally intelligent (Bracket, Mayer, & Warner, 2004; Mayer, Caruso, & Salovey, 2000), which may be the source of our empathy stereotype. Other research suggests that women's emotional experiences are much more socially based than are men's (Leaper & Smith, 2004; Evers, Fischer, Rodriguez Mosqueira, & Manstead, 2005). This could explain our ideas about women's communication abilities. However, much of the research available on these topics has to do with negative emotionality. Do these stereotypes hold true within the context of positive emotions?

#### **Positive Emotions**

It is widely understood within the psychological community that research surrounding positive emotions is lacking compared to the body of research on negative emotions (Ellsworth & Smith, 1988, Fredrickson, 1998). Positive emotions research has been marginalized for many reasons. Psychologists have historically been focused on negative emotions as it was widely believed that a lack of negative emotions would lead to an overall sense of well-being (Fredrickson, 1998; Seligman & Csikszentmihalyi, 2000). Following this logic, many psychologists focused energy on studying causes and "cures" for negative emotions and all but ignored positive emotions (Fredrickson, 2004). In the past, the idea that *only* negative emotions served an adaptive function was popular as well (Fredrickson, 1998). That is, theorists suggested that emotions themselves functioned in an adaptive manner in that they urged us to act in certain ways. Negative emotions support this theory, in that they narrow our actions in response to

situations that elicit them. Anger, for example, is likely to cause us to confront the anger-causing situation. Fear, another negative emotion, causes our body to react in a way that is conducive to “fight or flight.” Theorists drew upon these constructs to suggest that emotions have an evolutionary origin that causes them to serve the adaptive function of protection from harm (Fredrickson, 1998). Contrastingly, theorists were not able to draw such clear connections between positive emotions and their action tendencies. Since positive emotions did not fit the evolutionary model as neatly as did negative emotions, they remained neglected as an area of study.

Recently, however, researchers have realized that there is a need for a more thorough understanding of positive emotions (Smith & Ellsworth, 1998). Initially, researchers introduced many of the basic theories having to do with the importance of positive emotions, and their differentiation (Smith & Ellsworth, 1998). Soon after, the notion of the true importance of positive emotions was widely popularized by Barbara Fredrickson’s research. She points out many beneficial facets of positive emotions, and the importance of studying them. Specifically, her broaden-and-build theory of positive emotions (Fredrickson, 1998) delineates the adaptive nature (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009) of positive emotions and has created a great deal of interest in the study of them.

Broaden-and-build theory is aptly named. Its central tenet is that positive emotions are adaptive in that they *broaden* our attention, action tendencies, and cognitions and *build* psychological, social, and physical resources (Fredrickson, 2004, Cohn et al., 2009). Many theorists that study negative emotions argue that they are adaptive in that they narrow our focus and prompt us to act in a specific way in response to the eliciting situation (Fredrickson, 1998). In a fear-evoking situation, the emotion we experience (fear) narrows our focus towards that

situation, which in turn allows us to act in a set way (we fight the fear elicitor, or we run away). The narrow focus and thought-action repertoire are adaptive in this situation because a circumstance that evokes fear most likely requires immediate action and it is most beneficial to act in one of two ways. By contrast, situations that evoke positive emotions usually do not need immediate attention, so the narrowing nature of negative emotions is not useful in describing positive emotions' adaptive nature. Broaden-and-build theory ascribes a different adaptive function to positive emotions: they broaden our attention and build our resources for the future.

In examining a variety of positive emotions, one can find significant support for broaden-and-build theory. Take joy: a young child experiencing joy is likely to be quite active, and seek out other joy eliciting experiences. That child is engaging in what we call play (Fredrickson, 1998). Play is interesting because it is a set of actions, but it is broadly defined and very flexible. This is an excellent example of the broaden aspect of Fredrickson's theory. Joy causes the child from our example to broaden his or her thought-action repertoires and to engage in a variety of activities. Although play is sometimes seen as "aimless," it does have some reliable positive outcomes. Many researchers have demonstrated that play promotes skill acquisition—rough-and-tumble play strengthens our physical abilities, imaginative play strengthens our cognitive resources, and group play strengthens our social networks (Boulton & Smith, 1992; Dolhinow & Bishop, 1970). Thus, when one experiences joy, his or her thought-action repertoire is broadened, allowing him or her to engage in play. This play then builds resources for future use. Our example of joy clearly supports broaden-and-build theory

A great deal of empirical research has also supported broaden-and-build theory. In one study, participants were shown either positive, negative, or neutral film clips. They were then asked to imagine themselves as being present in the films, and describe actions they would like

to do right then within the context of the film. Participants that were shown positive film clips ultimately listed more items than participants in the negative and neutral film clip conditions. This study demonstrates that the experience of positive emotions broadens our thought-action repertoire. (Fredrickson & Branigan, 2004). In essence, participants are more open to a wider variety of actions when they experience a positive mood. The actual set of things they choose to do is *broader* as compared to the subjects in the neutral and negative film conditions, who listed fewer possible actions. Like the child from our play example above, the participants in the positive conditions were left in a more flexible state of mind, which allowed for a wider variety of listed possible actions. This specific study supports the notion that positive emotions are adaptive because they provide us with the ability to broaden our thought-action repertoire.

Empirical research has also supported the build aspect of Fredrickson's theory. In one study, researchers measured the appraisals of participants directly after the loss of a loved one. Participants with greater levels of positive appraisals in response to their loss demonstrated more positive outcomes 12 months after their loss (Stein, Folkman, Trabasso, & Richards, 1997). These results support the build aspect of Fredrickson's theory, in that they suggest that positive emotions during a time of tragedy built psychological resources and enhanced future outcomes for participants.

One area of positive emotions research that is particularly pertinent to this thesis is the relationship between positive emotions and social interactions. Broaden-and-build theory specifically addresses this relationship, and suggests that positive emotions lead to enhanced social resources (Fredrickson, 1998). In relation to this aspect of Fredrickson's theory, researchers have found that the expression of positive emotions during marital conflict leads to lower levels of divorce and increased marital satisfaction (Cartensen, Gottman & Levenson,

1995; Gottman, Coan, Carere, & Swanson, 1998; Gottman & Levenson, 1992). Here, broaden-and-build comes into play as positive emotions clearly lead to the enhanced social resource of a better marriage. Harter and Keltner (2001) also make a clear connection between broaden-and-build theory and sociability when they suggest that positive emotions facilitate pleasant interactions with others, which enhances an individual's likelihood of gaining social rewards. Since previous research surrounding sex differences in emotionality has pointed to social differences in emotional behavior, we are particularly interested in this facet of broaden-and-build theory. This connection will be examined further in the Sex Differences section of this introduction.

### **Appraisal Theory**

In their most boiled down form, appraisal theories of emotion can be described as theories that suggest that there is an intermediate step, or an appraisal, between a given situation and the emotion that that situation gives rise to (Roseman & Smith, 2001). That is, a given situation cannot give rise to emotions before one assigns personally based meaning to that situation. Smith and Lazarus (1990) argue that there are two overarching categories in any appraisal: primary and secondary appraisal, which when combined, have six main components.

In primary appraisal, one must assess the motivational relevance and motivational congruence of the given situation. One must decide whether a situation is important (motivationally relevant) and whether it is in line with their goals (motivationally congruent). If a situation is motivationally relevant and motivationally congruent, it is likely that he or she will experience a positive emotion.

In secondary appraisal, one makes decisions about accountability, his or her emotion focused coping potential, his or her problem focused coping potential, and his or her future

expectancy. So that person decides who is responsible for the situation (accountability), whether he or she will be able to emotionally handle the situation (emotion focused coping potential), whether he or she will have a controlling influence over changing that situation (problem focused coping potential), and finally whether the situation is likely to turn out how he or she would like it to (future expectancy). Through a combination of these six steps, nearly all named human emotions can be accounted for (Smith & Lazarus, 1990).

In order to further illustrate the nature of appraisal theory, it may be helpful to examine a specific emotional situation. Imagine a Vanderbilt student has received a 98% on a test in a difficult class in which she needs to excel in order to get into medical school in the future. She studied for the test well in advance and for many hours. When she receives her grade back, her appraisal may look something like this: this grade is very important to her goal of getting into medical school, so it is motivationally relevant. She was hoping for a high grade, and has received one. As a result, this situation is motivationally congruent. Additionally, this student feels that she is accountable for her grade, as she put in the hard work to get it. She feels that she will definitely be able to cope with this situation emotionally so her emotional coping potential is high. Her problem-focused coping potential is also high, because she does not wish to change the situation, and feels that she has control over keeping it the way it is. Finally, she feels that this situation is likely to turn out the way she would like, so her future expectancy is good. Taken all together, these appraisals give rise to the positive emotion of *pride*. In walking through these steps, one can see how appraisal theory functions as an intermediate step between a situation and the elicited emotion.

The broaden-and-build theory mentioned above differs from research having to do with appraisal theories and positive emotions in that it suggests much less differentiation among



positive emotions (Smith & Ellsworth, 1988). Contrastingly, in their research, Smith & Ellsworth (1988) have identified and defined 8 discrete positive emotions that can be differentiated. These emotions are: awe, challenge, contentment, gratitude, happiness, hope, interest, and pride (Smith & Ellsworth, 1988). It is useful to focus on differentiating positive emotions because it allows for more concrete study of them. Some research on Emotional Intelligence (EI) has cited the ability to differentiate emotions as being a factor of EI (Salovey & Grewal, 2005). As a result, a more differentiated take on positive emotions allows us to study them easily, and to draw connections to other emotional paradigms, like Emotional Intelligence.

Although there is disagreement on the amount of differentiation in positive emotions between the two theories, both broaden-and-build and appraisal theory center on the idea that emotions are, at their very core, adaptive. When emotions are functional, they serve to enhance our well-being and ensure our survival. Within the context of this thesis, it is useful that broaden-and-build theory specifically addresses positive emotions as they relate to social behavior, and that appraisal theory focuses on differentiating positive emotions. Taken together, these two theoretical frameworks can be harnessed to study positive emotions as they related to a broadly ignored area: sex differences.

### **Sex differences**

Since research surrounding positive emotions is relatively new, certain areas within the topic remain underdeveloped. My area of interest lies in positive emotions within appraisal theory as they relate to sex differences. This is one topic that has not yet been fully addressed within the current body of research.

The social aspect of sex differences within emotionality has been particularly helpful in guiding the present research. Many studies show that sex differences in positive emotions are

very much socially bound. For example, research suggests that men who display large amounts of happiness may be unattractive to potential female mates, while the opposite may be true for women displaying happiness. This research also notes that men who display pride more often are considered more attractive by the opposite sex (Tracy & Beall, 2011). Women who exhibit happiness are more likely to build social support (find a partner) while the opposite is true for men. Similarly, men displaying pride reap the social benefit of female attention, while the opposite is true for women. This study relates directly to broaden-and-build theory and sex differences in that specific positive emotions lead to building of different social resources for men and women. In other research, scientists have found that women are more apt than men to adjust their emotionality based on the feelings of others (Evers et al., 2005). In this study researchers found that anger expression is not as typically male as society would suggest. In other words, men and women display equal amounts of anger given a similar situation. However, they also found that when a social appraisal (an appraisal of a situation that involves taking the considerations of the feelings for another into account) was involved in the experiment, women displayed a statistically significant less amount of anger than men (Evers et al., 2005). This research suggests that social and group cohesion is of greater import to women than to men, and that this has a significant effect on emotionality. However, this research is based in anger, a negative emotion. This thesis will attempt to draw connections between emotionality, social appraisals, and *positive* emotions.

Another social dimension in which sex differences have been observed in the past is that of affiliative and achievement orientation. Research on this topic also supports the notion that women have a more social experience of emotions in that many studies suggest that women are more affiliative than achievement oriented, while the opposite is true of men. In one study,

scientists found that young girls were significantly more likely to use language considered affiliative than were boys while boys were more likely to use assertive language (Leaper & Smith, 2004). This study suggests that, from a young age, females are more social and affiliative than are boys. Another study looked into affiliative orientation and time spent with friends within sex differences. (Wong & Csikszentmihalyi, 1991). Researchers found that, overall, girls spent more time with friends regardless of their level of affiliative orientation. Perhaps more interestingly, affiliative girls reported better moods than non-affiliative girls, whereas affiliative boys reported worse moods than non-affiliative boys. These results suggest both that females are more affiliative in nature than are males, and that affiliation may give rise to positive emotions for girls (Wong & Csikszentmihalyi, 1991). Research on achievement orientation points to the fact that males, on average, are more achievement oriented than are females. One study found that elementary aged males rated their achievement related beliefs higher than their female peers, and that they experienced much more pride in response to a positive grade than did their female peers (Stipek & Gralinski, 1991). Taken together, the research surrounding sex differences in affiliative and achievement orientations suggests that women's emotions are more related to social (affiliative) situations, whereas men's emotions are much more tied to achievement situations.

Another area of research that has been influential in the execution of this thesis is that on sex differences in Emotional Intelligence (EI). Emotional Intelligence is a complicated concept, but it can be basically defined as one's intelligence as it relates to emotionality (Mayer et al., 2004). If an individual is adept at perceiving, facilitating, understanding, and managing emotions, he or she is thought to have a high EI (Mayer et al., 2004). A great deal of research suggests that women have higher levels of EI than do men (Bracket et al., 2004; Mayer et al.,

2000). Additionally, the research of Kublei and Fivush (1992) suggests that parents speak differently to their children depending on their sex, especially with regards to emotions. The researchers found that in speaking with female children, both parents use a greater variety and an increased number of emotion words than when they are speaking with male children (Kublei & Fivush, 1992). Paired with the theoretical notion that a broader emotional vocabulary is an important facet in Emotional Intelligence (Mayer et al., 2004) this research supports the notion that women are more likely to have higher levels of EI. Another study found that women scored higher on the “social skills” portion of an EI measure (Petrides & Furnam, 2000). This specifically relates to research surrounding emotions and social skills and supports the notion that emotionality related to social situations is an area in which women excel as compared to men. When considered as a whole, the research on EI suggests that women have, on average, higher levels of EI, and higher levels of EI specifically related to social situations. Given that some theorists feel that the ability to differentiate emotions is an important facet of EI (Salovey & Grewal, 2005), using appraisal theory, which specifically differentiates positive emotions (Smith & Ellsworth, 1988), is a good approach to studying sex differences, and one that we use in this thesis.

Although some research on sex differences and emotions is available, research having to do, specifically, with sex differences and positive emotions within appraisal theory is somewhat limited. Research has previously focused on positive emotions within appraisal theory (Smith & Ellsworth, 1988) and sex differences within appraisal theory (Evers et al., 2005), but the three have not been examined together to this point.

### **Goals of Current Research**

The goal of this thesis is to determine if men and women express, understand, and experience positive emotions differently. Drawing on previous research, we have formulated three main hypotheses. First, in light of research that suggests that women have higher emotional intelligence (Bracket et al., 2004; Mayer et al., 2000) and that the ability to differentiate positive emotions is related to improved emotional intelligence (Salovey & Grewal, 2005) we expect that women will differentiate positive emotions more effectively than will men. Second, based on the social nature of women's emotionality (Evers et al., 2005; Petrides & Furnam, 2000, Wong & Csikszentmihalyi, 1991) we expect those experiences that elicit positive emotions will differ based on sex. More specifically, as supported by previous research (Leaper & Smith, 2004; Wong & Csikszentmihalyi, 1991) we expect that women's positive emotion experiences will be more affiliative in nature than men's where men's positive emotions will be achievement based (Stipek & Gralinski, 1991). Finally, also based on research surrounding differences in men and women's social experience of emotions (Tracy & Beall, 2011; Evers et al., 2005; Petrides & Furnam, 2000) we hypothesize that men and women will use different language to express their positive emotions. We expect that women's language surrounding positive emotions will be more social (Leaper & Smith, 2004; Wong & Csikszentmihalyi, 1991), where men's language will be more self and achievement focused (Stipek & Gralinski, 1991).

As mentioned earlier, positive emotions have the potential to be quite beneficial if they are understood and harnessed correctly. Through this thesis, we hope to broaden our general understanding of positive emotions, and in doing so, enhance the beneficial nature of these emotions.

## Methods

**Participants** Participants were 108 Vanderbilt University undergraduates (36 male; 72 female). All participants were volunteers who received course credit for participation. Data was collected in two waves, one in Fall Semester 2012 (N=67, 25 male; 42 female) and one in Spring Semester 2013 (N=41, 11 male; 30 female). Table 1 describes measures collected from participants based on wave.

Table 1: Data collected by wave of experiment

Wave	Recruitment Method	Measures	Number of Participants	Sex Ratio
1	Classroom, By Researcher, SONA	Pride/Happiness Data, DOPES, Emotional Scale, Appraisal Styles, PANAS,	N=67	Female N= 42 Male N=25
2	SONA	Pride/Happiness Data, DOPES, PANAS, Emotional Scale, BSRI	N= 41	Female N=30 Male N=11

### Emotion Recollection Task<sup>1</sup>

In an attempt to gain a greater understanding of participants' positive emotions, participants were asked to list 3 times that they felt an instructed mood, depending on their condition. The conditions were pride or happiness. Participants were then asked to write extensively about one of their listed instances. A copy of this measure can be found in the appendix

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<sup>1</sup> As part of a larger project, some participants in Wave 2 of data collection reported instances of gratitude or challenge. Due to small sample size, these results are not reported in this paper.

## **Measures**

***Linguistic Inquiry Word Count*** In order to highlight sex differences in the expression of positive emotions we analyzed participants' language used to describe positive emotions. A Linguistics Inquiry and Word Count (LIWC; Pennebaker, Booth, & Frances, 2007) analysis was run on the participants' extensive descriptions of pride/happiness experiences. This software quantitatively analyzes text using data dictionaries. It was used to calculate how often participants used certain categories of words. Examples of categories include positive words, negative words, leisure words, and human words. We used these rates to determine if there were sex differences in the way that women and men express positive emotionality.

***Emotion Recollection Task Codes*** In order to examine sex differences in pride/happiness elicitors, participants' individual responses were categorized based on Emotion Recollection Task codes developed by the researcher, then coded by the researcher and two lab members in order to ensure reliability. A copy of these codes can be found in the appendix. Reliability for these Emotion Recollection Task codes was greater than 80%. Coding was done in two rounds. In the first round, pride/happiness elicitors were coded into specific categories (see appendix). These codes were used in a qualitative manner. In the second round of coding, those specific categories were re-coded as "Affiliative," "Achievement," or "Other." Reliability for the second round Emotion Situation codes was greater than 90%.

***Appraisal Styles*** In order to assess general appraisal style, participants responded to the Appraisal Style Questionnaire (ASQ; David, Kirby, & Smith, 2007). Participants were prompted to immerse themselves in a series of 12 situations. Following immersion, participants responded to 7 questions on a 1(not at all) to 9 (extremely) scale. Each of the 7 questions represents an

appraisal dimension. The reliability across all twelve measures of appraisal style are (1) motivational relevance  $\alpha = .83$ , (2) motivational congruence  $\alpha = .80$ , (3) Emotion-Focused Coping Potential  $\alpha = .87$ , (4) Problem-Focused Coping Potential  $\alpha = .78$ , (5) Self-Accountability  $\alpha = .64$ , (6) Other-Accountability  $\alpha = .77$ , and (6) Future Expectancy  $\alpha = .74$ . A copy of this measure can be found in the appendix.

***Positive and Negative Affect*** The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to measure participants' general positive and negative affects. It consists of two mood scales—one aimed at measuring positive affect, and one aimed at measuring negative affect. Participants rated, on a 1 (Rarely or not at all)- 5 (Always or almost always) scale the extent to which they *generally* felt a variety of emotions. The reliability for positive affect is  $\alpha = .89$  and reliability for negative affect is  $\alpha = .85$ . A copy of this measure can be found in the appendix.

***Positive Emotion Differentiation*** In order to determine the degree to which participants differentiate between positive emotions, the Differentiation of Positive Emotions Scale (DOPES; Kirby, Tugade, Smith & Morrow, 2009) was used. DOPES is a vignette based scale in which participants are instructed to immerse themselves in a given situation, then rate, on a 1 (not at all) – 9 (extremely much) scale the extent to which they felt a variety of positive emotions. Each of the 8 situations is specifically targeted at eliciting one of the 8 positive emotions measured on DOPES. Those positive emotions are: awe, challenge/determination, contentment, gratitude, happiness, hope, interest, and pride. For example, the vignette meant to elicit pride describes a situation in which the participant has worked extremely hard on a group project. The participant's classmates acknowledge and applaud his or her hard work. The DOPES is analyzed by, for each participant, inter-correlating the 8 emotions across the 8 situations and taking the



average inter-correlation of those scores. The DOPES score is the z transformation of that average inter-correlation. Lower scores are, thus, an indication of more differentiation amongst the 8 positive emotions. A copy of this measure can be found in the appendix.

***Sex Specific Traits*** In order to assess participants' ascription to sex/gender norms, the Bem Sex Role Inventory (BSRI; Bem, 1981) was used. The measure requires participants to rate on a 1 (Always) to 7 (Never) scale the extent to which they embody 60 different traits. 20 of the traits are feminine (e.g. tender, cheerful, shy), 20 are masculine (e.g. assertive, athletic, forceful), and 20 are filler. Participants that score above the median score in either the masculinity or femininity scale are considered to be strongly sex/gender oriented in that direction. Participants that score above the median in both scales are considered androgynous. Reliability for the BSRI masculinity scale is  $\alpha = .97$ . Reliability for the femininity scale is  $\alpha = .78$ . A copy of this measure can be found in the appendix.

***DEAL*** In order to assess participants' experience of specific emotions, the Discrete Emotion Adjective List (DEAL; Smith & Kirby, 2010) was administered. Participants rated the extent to which they generally felt a given adjective cluster on a 1 (Never) – 9(Always) scale. A copy of this measure can be found in the appendix.

### **Apparatus**

The measures were either collected on paper or through REDcap (Harris, Tyler, Thielke, Payne, Gonzalez, & Conde, 2009). REDcap is a secure, web based application designed to collect and manage data for research studies.

### **Procedure**

Participants completed surveys on paper or electronically based on their wave. Each participant was asked to recall 3 times he/she had experienced a positive emotion (happiness or

pride) in the recent past and record those three instances. Participants were then asked to select one of the listed items, immerse themselves in the situation, and write about it in enough detail that a reader could imagine him/her/herself in that situation. Subjects then completed the DEAL, DOPES, The Appraisal Styles Questionnaire, BSRI, and PANAS.

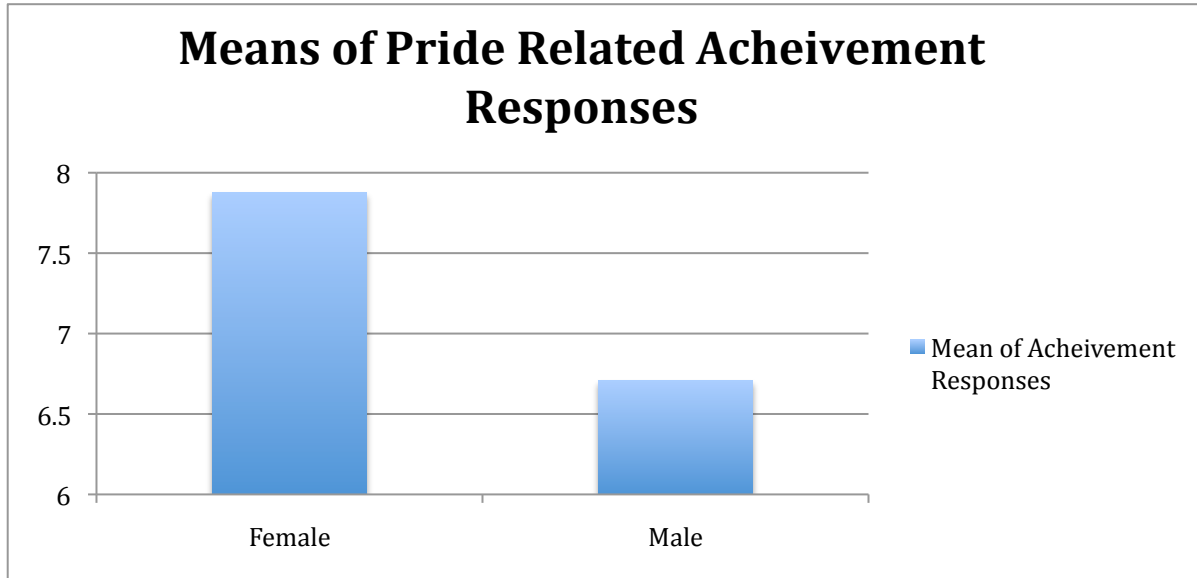
## Results

In order to investigate our hypotheses surrounding positive emotions and sex differences, we ran a series of independent sample t-tests. We had three main hypotheses. First, we hypothesized that women would differentiate their positive emotions more effectively than would men. We expected to observe this difference in the DOPES data. Our second hypothesis was that women and men would experience positive emotions in response to different elicitors, which we expected to observe in participants' listed pride/happiness occurrences. Our final hypothesis was that there would be an observable sex difference in the language that women and men use to discuss positive emotions, which we expected to observe in our LIWC analysis.

One of our main areas of interest is in differentiation of positive emotions. In our analysis we found no statistically significant sex difference in the differentiation of positive emotions. We ran analysis on these z scores and found no significant sex difference in the differentiation of positive emotion (Emotion differentiation:  $t(90)=-1.075$ ,  $p=.285$ ).

Our next hypothesis was that there would be a sex difference in elicitors of positive emotions. There was a trending result in the pride condition between women ( $M=7.88$ ,  $SD=1.33$ ) and men ( $M=6.71$ ,  $SD=2.30$ );  $t(37)=2.01$ ,  $p=.052$ . This result suggests that women are more likely to report feelings of pride when the elicitor is achievement oriented. This data is represented in Table 2.

Table 2. Means-Pride Related Achievement Responses



Our final hypothesis was that men and women would express their positive emotions differently. In order to measure this, we ran an analysis on our LIWC data. Significant and trending data can be found in Table 3. Women use more present oriented words, more future oriented words, and more verbs. Men use more leisure-oriented words.

Table 3. Male and Female Means for the Dictionary Items Present, Future, Verbs, and Leisure

Dictionary Item	Means by Sex		t	df
	Female	Male		
Present	2.95	1.34	2.63*	52
Future	.389	.0213	2.84**	52
Verbs	14.75	12.330	1.87	52
Leisure	1.74	3.56	-2.232*	52

Note. \* $p < .05$  \*\* $p < .01$  other correlations are  $p < .10$

We analyzed the DEAL in order to measure rates at which men and women experience a variety of emotions. The significant and trending data are all reported in Table 4. Men are more likely to report feeling relieved, proud, indebted, regretful, and surprised.

Table 4. Male and Female Means for the Emotions Relieved, Proud, Indebted, Regretful, Surprised

Emotion	Means by Gender		t	df
	Female	Male		
Relieved	3.65	4.95	-3.138**	44
Proud	4.69	5.95	-3.052*	44
Indebted	3.19	4.35	-2.063*	44
Regretful	2.42	3.70	-2.616*	44
Surprised	2.64	3.27	-1.881	69

Note. \* $p < .05$  \*\* $p < .01$  other correlations are  $p < .10$

We analyzed the Appraisal Styles Questionnaire to determine if there are sex differences in general appraisal styles. Our results suggest that there are statistically significant differences in men and women's appraisal styles. The significant data are all reported in Table 5. Women rate negative situations as being more motivationally relevant, men rate negative situations as being more motivationally congruent, overall, men find situations to have greater motivational congruence, women have a more extreme view of motivational congruence, and women rate themselves as being more accountable for negative situations.

Table 5. Male and Female Means for Appraisal Style Items

Facet of Appraisal Style	Means by Sex		t	df
	Female	Male		
Neg. Motivational Relevance	7.36	7.19	2.64*	59
Neg. Motivational Congruence	1.738	2.72	-3.227**	59
Full Motivational Congruence	4.94	5.41	-2.959**	60
Motivational Congruence Extreme	8.2	7.5	2.781**	60
Negative Self Accountability	6.6	5.9	2.739**	59

Note. \* $p < .05$ , \*\* $p < .01$

We analyzed the Positive and Negative Affect Schedule (PANAS) to determine if there are sex differences in rates of positive and negative affect. Our results suggest that there is not a statistically significant sex difference in positive and negative affect (Positive Affect:  $t(84) = -1.299$ ,  $p = .198$ ; Negative Affect:  $t(84) = -.184$ ,  $p = .854$ ).

We analyzed our BSRI data in order to determine levels of masculinity and femininity of our participants. Our results suggest that there is not a statistically significant difference in masculinity and femininity levels (Masculinity:  $t(26) = -1.27$ ,  $p = .215$ ; Femininity:  $t(26) = .563$ ,  $p = .578$ ).

## Discussion

As mentioned in the results section, we have fewer statistically significant results than we expected. Within our DOPES analysis, we did not find a large discrepancy in how men and women differentiate positive emotions. However, it appears that our small sample size that is skewed in the female direction may be a factor playing into this specific result. Although our results are not statistically significant, the mean scores support our general hypothesis that women will differentiate positive emotions more effectively than will men. Women had, on

average, lower scores on the DOPES, suggesting that they may be better at differentiating positive emotions. Previous research suggests that women are brought up being exposed to more emotional language (Kubler & Fivush, 1992). This research ultimately supports other studies that suggest that women have higher levels of EI than do men (Brackett et al., 2004; Mayer et al., 2000). Since the ability to differentiate emotions is an important facet of EI (Salovey & Grewal, 2005) we expect that women are generally better at differentiating positive emotions.

Additionally, many types of emotional displays are more socially acceptable for women than they are for men. Some argue that women are expected to exude warmth and positive emotions (Hochschild, 1983). In light of this, we reason that women are both more exposed to positive emotions and more practiced in experiencing positive emotions. We also feel that the related nature of Emotional Intelligence and the ability to differentiate positive emotions suggests that women should be better at differentiation on a whole. By this logic, we feel that a larger, more sex balanced sample size would evince that women are significantly better at differentiating positive emotions.

Those results that are significant in the DEAL are very interesting and worth addressing. Our male participants report experiencing pride with significantly greater frequency than do our female participants. Previous research suggests that males that express more pride are found more sexually attractive to the opposite sex (Tracy & Beall, 2011). Given this research, it is not surprising that men are more apt to report feeling prideful.

In our study, participants were asked to list three instances that made them feel pride or happiness. Our analysis of these Emotion Recollection Task lists adds an interesting nuance to our pride related results on the DEAL. In our analysis of the listed pride elicitors, we found that women are more likely to report feeling pride in response to situations that are purely

achievement oriented. At first glance, this seems to conflict with the general theory that men are more likely to report pride and be more achievement oriented (Stipek & Gralinski, 1991).

However, in taking a more in depth view of the data, it appears that our coding method may have affected this result and point to a difference in the way men and women experience pride. In the coding process, each list item was coded as “Achievement Oriented,” “Affiliative Oriented,” or “Other.” Men were much more likely to feel pride in response to situations coded as “other.” This suggests that male pride experiences may be broader—men are more likely to experience pride in a wider variety of situations.

Before the pride/happiness elicitors were coded into broad “Achievement,” “Affiliative,” and “Other” categories, they were coded into specific categories to more accurately reflect the experience of the participant. Some examples of codes include “Relaxation,” “New Purchase,” “Academic Achievement,” and “Social Interaction with Friends.” We analyzed these more detailed categories qualitatively. This analysis revealed that there are some fascinating trends in happiness and pride elicitors for men and women. The most apparent trend has to do with videogames. Three male participants reported feeling pride or happiness in response to video games, while no female participant listed a videogame as a pride/happiness elicitor. This could be due to a variety of factors—men are often regarded as more competitive than are women. Video games may be a means through which men expend this competitive energy. Another theory relates to social acceptability of videogame play. Studies suggest that women experience higher rates of “cyber bullying” when they engage in online videogame play (Thacker & Griffiths, 2012). Women may not, as a result, seek out videogames to elicit positive emotions.

Another interesting trend that emerged in our qualitative analysis is that women were more likely to list social interactions (with friends, family, and significant others) as

pride/happiness elicitors. This is in line with ideas that women are generally more social and communicative, especially in regards to emotionality. This notion is supported by previous research, which suggests that women are more likely to take others into account in the context of emotional displays (Evers et al., 2005) and that women gain more pleasure in being social (Wong & Csikszentmihalyi, 1991). Collectively, trends in our analysis of pride/happiness elicitors support our hypothesis that women and men experience positive emotions in response to different situations. This analysis suggests that, as we hypothesized, women's positive emotions are more linked to aspects of sociability.

Our analysis of the Appraisal Styles Questionnaire reemphasizes the importance of social cohesion for female emotions. One particular aspect of this analysis supports the notion that social interaction and cohesion is more important for women than it is for men. When participants immersed themselves in negative vignettes, women were significantly more likely to have high self-accountability. In other words, within the context of a negative situation, female participants are more likely to blame themselves. We reason that this self-blame is a way to maintain group cohesion. In blaming oneself for a negative situation, one avoids blaming others, which may lead to conflict. Research on anger and appraisals supports the notion that women are likely to adjust their emotionality in order to enhance overall social outcomes (Evers et al., 2005). Although this data is specific to a negative situation that is likely to give rise to negative emotions, it is important in that it reemphasizes the importance of social interaction in women's emotional experiences.

The final detail we noticed in our qualitative analysis of our Emotion Recollection Task codes was that overall, women listed all 25 of the available codes, while men only listed 19. Although we have more female participants than we have male participants, we suspect that this



trend would remain if the participant pool was more sex even because it is supported by previous research that suggests that women are more exposed to (Kubler & Fivush, 1992) and experienced (Hochschild, 1983) in positive emotionality. Given women's relatively higher levels of exposure and experience with positive emotions, we reason that women experience positive emotions in general to a broader range of situations.

In order to test our hypothesis that men and women express their positive emotions differently, we analyzed data obtained through a LIWC analysis of each participant's in depth description of an Emotion Recollection Task item. Women are significantly more likely to use present and future oriented words. One study connected the use of future oriented words to decreased self-focus (Tausczik & Pennebaker, 2010). This research was age centered, and found that older participants evinced an increased rate of future oriented words as they aged, suggesting less self-focus. We feel that this relationship can also be drawn between future oriented words and sex, meaning that women are less self-focused when discussing positive emotions. This is in line with the above conclusion that women are more likely to experience positive emotions in response to social situations. Additionally, a trend in the data suggests that women are more likely to use human related words when expressing positive emotions. This also supports the notion that women's positive emotions are more socially related than are men's. All of these conclusions are supported by previous research that suggests that women's experience of emotion is much more social than is men's (Evers et al., 2005; Petrides & Furnam, 2000).

Our results for the Bem Sex Role Inventory suggest that our male participants are not more masculine than our female participants, and that our female participants are not more feminine than our male participants. These results are likely due to our participant demographic. Compared to the general population, many Vanderbilt students are driven and achievement

oriented. This is due to the admissions standards and the rigorous nature of the course work at Vanderbilt. Most of the items on the masculinity scale of the BSRI are based on assertiveness and goal driven behaviors while the items on the femininity scale focus on submissive behaviors. Given the general disposition of Vanderbilt students, male and female, our participants' scores on the BSRI are not unexpected.

### **Limitations and Future Directions**

The most glaring limitation in this study is sample size. We expect that a larger pool of participants might yield more significant sex differences because a larger pool would create a study more representative of the general population. This holds particularly true for our DOPES analysis. The narrow nature of our participant demographics is also a limitation. Our participants are mostly women, and only Vanderbilt students. It seems that this affected many of our results. Given a larger and more sex balanced participant pool, we anticipate that we would find more representative scores that are more reflective of the overall population. This would give us a more detailed understanding of positive emotions, sex differences, and appraisal theory.

As mentioned above, we would like to broaden our participant pool, both in quantity and quality. In doing so, we expect to see a broader array of sex differences. In the future, we would also like to collect more in depth demographic data including information about race, sexuality, and age. This might allow us to draw more accurate correlations between emotional differences and sex differences. This information will help us more clearly point to sex as a causal factor in differences in positive emotions. Finally, we would also like to collect data on a greater variety of positive emotions, as the majority of our data focused mainly on pride and happiness.

We have already begun running participants in other positive emotion conditions (challenge and gratitude) and are hoping to gather data on a larger participant pool that is more

evenly divided between sexes. As such, we are looking forward to the prospect of further illuminating the connections between appraisal theory, sex differences, and positive emotions.

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# Past Experiences & Personality

Please complete the survey below.

Thank you!

Are you ...

female  male

Are you...

freshman  sophomore  
 junior  senior

In what month were you born?

January  
 February  
 March  
 April  
 May  
 June  
 July  
 August  
 September  
 October  
 November  
 December

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There are many things in our lives, both large and small, that we might be proud of. Below, list three things or events in your life that have made you proud recently.

In the space below, describe in detail the one situation that has made you the most proud recently, and describe it in such a way that a person reading the description would become proud just from reading about the situation.

There are many things in our lives, both large and small, that we might be happy about. Below, list three things or events in your life that have made you happy recently.

In the space below, describe in detail the one situation that has made you the happiest recently, and describe it in such a way that a person reading the description would become happy just from reading about the situation.

There are many things in our lives, both large and small, that we might be grateful for. Below, list three things or events in your life that have made you grateful recently.

In the space below, describe in detail the one situation that has made you the most grateful recently, and describe it in such a way that a person reading the description would feel gratitude just from reading about the situation.

There are many things in our lives, both large and small, that we might feel determined or persistent about. Below, list three things or events in your life that have made you determined/persistent recently.

In the space below, describe in detail the one situation that has made you the most determined/persistent recently, and describe it in such a way that a person reading the description would become determined just from reading about the situation.

There are many things in our lives, both large and small, that we might be hopeful about. Below, list three things or events in your life that have made you hope recently.

In the space below, describe in detail the one situation that has made you the most hope recently, and describe it in such a way that a person reading the description would become hopeful just from reading about the situation.

For the next set of questions, you will see brief descriptions of 8 hypothetical situations. Each situation is followed by a series of questions. For each situation please try to imagine yourself in the situation as vividly as you can. If such a situation happened to you, how do you think you would be feeling while you were in this situation? When you are imagining yourself in the situation as vividly as you can, please answer the questions that follow the description to rate your feelings. When you have answered all the questions for one situation you should go on to the next situation, until you have imagined yourself in all 8 situations. There are no right or wrong answers. Please try to answer every question as best you can, and make it true for you.

You are hiking up a hill through thick woods. It was raining earlier, but the rain stopped a short time ago, and the sun is now shining. All of a sudden, you come to a clearing near the top of the hill, and enter a beautiful meadow filled with wildflowers and butterflies. A clear stream is running through the meadow, and there is a rainbow in the sky. Off in the distance you can see snow-capped peaks from a nearby mountain range. Please indicate the extent to which you would feel the following if you were in this situation:

INTERESTED // CURIOUS

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

PROUD

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

GRATEFUL

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

CHALLENGED // DETERMINED // MOTIVATED

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

HOPEFUL

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

HAPPY

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

AWED

not at all                      moderately                      extremely

-----

(Place a mark on the scale above)

CONTENT // SATISFIED

not at all                      moderately                      extremely

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(Place a mark on the scale above)

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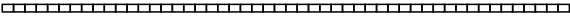
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**You have been spending a fair bit of time trying to solve a difficult problem that is part of an important project you have been working on. So far you have been unable to solve the problem, but you believe that a solution is possible and you know that if you keep at it, you will be able to solve the problem and make the project a success.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

**INTERESTED // CURIOUS**

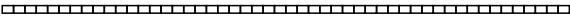
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**PROUD**

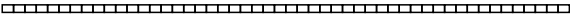
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**GRATEFUL**

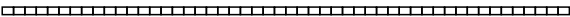
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**CHALLENGED // DETERMINED // MOTIVATED**


not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**HOPEFUL**

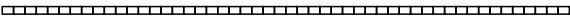
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**HAPPY**

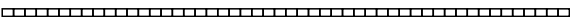
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**AWED**

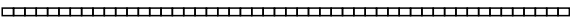
not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**CONTENT // SATISFIED**

not at all                      moderately                      extremely



*(Place a mark on the scale above)*

**After working very hard for several weeks, you are finally able to take some time off. Right now you are relaxing on the beach. There is a nice breeze, you have a drink, and you are relishing the knowledge that there's nothing at all you need to be doing right now.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

INTERESTED // CURIOUS

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

PROUD

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

GRATEFUL

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

CHALLENGED // DETERMINED // MOTIVATED

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

HOPEFUL

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

HAPPY

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

AWED

not at all                      moderately                      extremely

-----

*(Place a mark on the scale above)*

CONTENT // SATISFIED

not at all                      moderately                      extremely

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*(Place a mark on the scale above)*

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**You are walking around in a strange city, and suddenly realize that you are lost. As you are standing at a street corner, intensely studying your map to try to figure out where you are, someone comes up to you and asks you in a friendly way where you are trying to go. After you tell this person, s/he says that sh/he is headed that way and suggests you go together. Within a few minutes this person has taken you to your destination, having pointed out some interesting sights along the way.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

**INTERESTED // CURIOUS**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**PROUD**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**GRATEFUL**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**CHALLENGED // DETERMINED // MOTIVATED**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**HOPEFUL**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**HAPPY**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**AWED**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

**CONTENT // SATISFIED**

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

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**You're at a party on Saturday night in honor of your friend's wedding anniversary. You're with a group of close friends and family members, and the atmosphere is festive. You generally like special occasions like this when everyone comes together to have fun. Everyone, including you, is laughing and dancing, and having a great time.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

**INTERESTED // CURIOUS**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**PROUD**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**GRATEFUL**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**CHALLENGED // DETERMINED // MOTIVATED**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**HOPEFUL**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**HAPPY**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**AWED**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

**CONTENT // SATISFIED**

not at all                      moderately                      extremely

=====

*(Place a mark on the scale above)*

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**Things in your life have been somewhat difficult lately, but you are optimistic about what lies ahead. You know that there are new opportunities available to help things get better, and they seem promising. You trust that things will be better soon. You are looking forward to good things to come and a bright future ahead. You are thinking about the positive change that can happen.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

INTERESTED // CURIOUS

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

PROUD

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

GRATEFUL

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

CHALLENGED // DETERMINED // MOTIVATED

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

HOPEFUL

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

HAPPY

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

AWED

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

CONTENT // SATISFIED

not at all                      moderately                      extremely

*(Place a mark on the scale above)*



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**A public figure that you admire has come to town, and you have the opportunity to hear this person speak. You are out for the evening to attend the talk. It is on a topic you have wanted to know more about for a long time. You have settled into your chair. The speaker, who has just been introduced, is beginning the presentation.**

**Please indicate the extent to which you would feel the following if you were in this situation:**

INTERESTED // CURIOUS

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

PROUD

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

GRATEFUL

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

CHALLENGED // DETERMINED // MOTIVATED

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

HOPEFUL

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

HAPPY

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

AWED

not at all                      moderately                      extremely

*(Place a mark on the scale above)*

CONTENT // SATISFIED

not at all                      moderately                      extremely

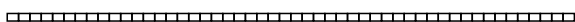
*(Place a mark on the scale above)*

You have been working very hard on a group project. The rest of your group members have been contributing, but you have gone the extra distance for the project. You know that the project wouldn't be nearly as good as it is had you not worked so hard. Your group has just presented the project and it is extremely well received. As your group is receiving praise for an excellent job, a member of your group speaks up and indicates that the group owes its success to you; that you had really pulled the project together. The other members of the group start spontaneously applauding you and your efforts.

Please indicate the extent to which you would feel the following if you were in this situation:

INTERESTED // CURIOUS

not at all                                      moderately                                      extremely



(Place a mark on the scale above)

PROUD

not at all                                      moderately                                      extremely



(Place a mark on the scale above)

GRATEFUL

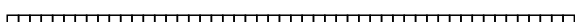
not at all                                      moderately                                      extremely



(Place a mark on the scale above)

CHALLENGED // DETERMINED // MOTIVATED

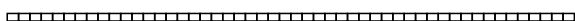
not at all                                      moderately                                      extremely



(Place a mark on the scale above)

HOPEFUL

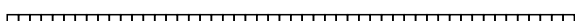
not at all                                      moderately                                      extremely



(Place a mark on the scale above)

HAPPY

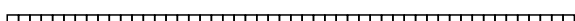
not at all                                      moderately                                      extremely



(Place a mark on the scale above)

AWED

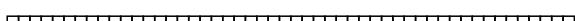
not at all                                      moderately                                      extremely



(Place a mark on the scale above)

CONTENT // SATISFIED

not at all                                      moderately                                      extremely



(Place a mark on the scale above)

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**This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer. Indicate to what extent you have felt this way during the past FEW WEEKS.**

interested

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

surprised

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

distressed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

excited

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

upset

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

strong

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

guilty

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

scared

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

hostile

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

enthusiastic

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

proud

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

irritable

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

alert

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

ashamed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

inspired

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

nervous

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

determined

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

attentive

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

jittery

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

active

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

afraid

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

defeated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

relieved

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

tranquil

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

frustrated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

regretful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

shy

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

grateful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

mad

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

hopeful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

bored

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

overwhelmed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

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**Continue evaluating each adjective in terms of the way you have generally felt over the past several weeks.**

sad

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

disgusted

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

indebted

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

amused

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

curious

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

joyful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

embarrassed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always



disappointed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

satisfied

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

compassionate

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

awed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

resigned

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

appreciative

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

detached

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

anxious

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

thwarted

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

persistent

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

timid

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

calm

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

angry

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

overloaded

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

remorseful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

downhearted

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

wondrous

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

repulsed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

happy

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

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**Continue evaluating each adjective in terms of the way you have generally felt over the past several weeks.**

astonished

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

culpable

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

beaten

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

unburdened

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

serene

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

exasperated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

sorry

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

motivated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

bashful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

thankful

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

engaged

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

irate

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

optimistic

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

uninterested

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

apprehensive

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

rattled

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

triumphant

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

frightened

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

blue

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

disgraced

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

revolted

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

annoyed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

obligated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

inquisitive

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

glad

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

eager

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

humiliated

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

let down

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

content

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

empathetic

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

amazed

- RARELY or not at all
- A LITTLE
- SOMETIMES or a moderate amount of time
- MOST or quite a bit of the time
- ALWAYS or almost always

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**The next section presents a list of attributes. Please indicate how often you feel like these attributes describe you.**

self reliant  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

yelidning  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

helpful  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

defends own beliefs  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

cheerful  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

moody  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

independent  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always



shy  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

conscientious  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

athletic  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

affectionate  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

theatrical  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

assertive  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

flatterable  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

happy  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

strong personality

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

loyal

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

unpredictable

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

forceful

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

feminine

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

reliable

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

analytical

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

sympathetic

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

jealous  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

leadership ability  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

sensitive to other's needs  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

truthful  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

willing to take risks  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

understanding  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

secretive  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

makes decisions easily  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

compassionate  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

sincere  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

self-sufficient  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

eager to soothe hurt feelings  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

conceited  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

dominant  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

soft spoken  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

likeable  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

masculine  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

warm  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

solemn  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

willing to take a stand  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

tender  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

friendly  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

aggressive  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

gullible  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

inefficient  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

acts as a leader  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

childlike  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

adaptable  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

individual  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

does not use harsh language  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

unsystematic  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

competitive  1 Never  
 2  
 3  
 4  
 5  
 6  
 7 Always

loves children

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

tactful

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

ambitious

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

gentle

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always

conventional

- 1 Never
- 2
- 3
- 4
- 5
- 6
- 7 Always