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Emotions at work: what do people feel and how should we measure it?

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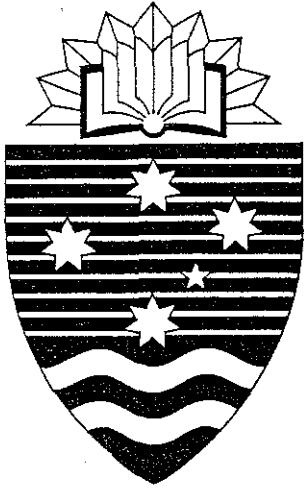
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"Emotions at Work: What Do People Feel and
How Should We Measure It?"

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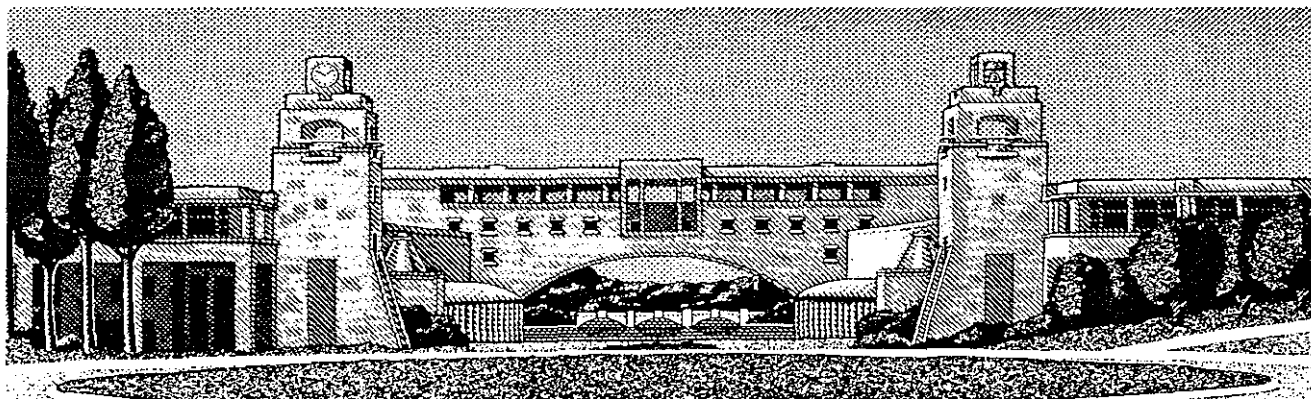
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B O N D U N I V E R S I T Y

Emotions at Work: What Do People Feel and How Should We Measure It?

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Emotions at Work: What Do People Feel and How Should We Measure It?

Affect at work is of increasing interest to organisational researchers. Prior research on felt affect at work has focused almost exclusively mood rather than emotion. As yet we have little knowledge about which emotions are felt or how frequently they are felt in the workplace, or of what their causes or consequences might be. There has not even been an instrument available for measuring emotion at work. This paper reports on a preliminary study designed as a lead-in to further research on emotion at work. One hundred sixteen people reported on the frequency with which they had experienced 135 different emotions while at work. Differences in the emotional experiences of female and male employees, part time and full time workers, and employees in five different job categories are explored. The data on emotion frequency, together with literature on typologies of emotions, are then used to construct a short self report instrument for assessing real-time emotional experiences at work. This instrument is presently being used in experience sampling research on emotion by the author.

Until fairly recently, affect in the workplace had been largely ignored. Our fascination with theories of rational, intentional behaviour and decision making meant that sometimes-irrational feelings and emotions were not considered as normal or important causes of behaviour at work (Ashforth and Humphrey, 1995; Putnam and Mumby, 1993). Attitudes were as close as researchers were willing to get to measuring affect, though research has shown that job satisfaction as typically measured is primarily a cold, stable cognitive evaluation of job characteristics, rather than hot affect (Brief and Roberson, 1989). The last decade, however, has seen a surge of interest in affective experiences at work (c.f. George and Brief, 1992 and 1996; Isen and Baron, 1991; Weiss and Cropanzano, 1996).

Moods and Emotions

The term “affect” is broad and encompasses at least two relatively distinct phenomena: moods and emotions. Moods tend to be longer lasting but often weaker states of uncertain origin, while emotions are often more intense, more short lived, and have a clear object or cause (Frijda, 1993). For instance, one may be in a generally grumpy mood all morning for no particular reason, or one may feel intensely sad (emotion) after receiving bad news. Moods and emotions are not unrelated, as a negative (positive) emotion may decay into a diffuse bad (good) mood as the cause or object of the feeling becomes less salient, or a mood may predispose one to feel similarly toned emotions as soon as suitable provocation is present. Never-the-less, the distinction is useful.

The vast majority of the research on affect at work has focused on moods rather than emotions, though researchers sometimes claim that they are investigating both. Social psychologists have identified two dimensions which underlie moods: evaluation (positive or negative) and arousal (high or low). In organisational behaviour, the most commonly used conceptualisation of moods is that of Watson and Tellegen (1985). This view rotates the evaluation and arousal axes 45 degrees, and names the two dimensions positive and negative affectivity. High positive affectivity involves being cheerful, peppy, interested, and enthusiastic (high arousal, positive evaluation). Low positive affectivity involves being listless, lethargic, and apathetic (low arousal, negative evaluation). High negative affectivity is experiencing distressing negative emotions like worry, guilt, upset, and hostility (high

arousal, negative evaluation). Low negative affectivity is being calm, placid, and content (low arousal, positive evaluation) (Watson, Clark, and Tellegen, 1988).

Although moods tend to last longer than emotions, moods have historically been considered to be fairly transient phenomena, lasting hours rather than days or weeks. Some of the research has been true to this conceptualisation of moods as transient states. For instance, Alliger and Williams (1993) assessed mood at work and its potential correlates several times each day. More often, respondents are asked to report on their average mood over a longer time period, even though moods vary within the time period, because of the difficulty and intrusiveness of measuring moods as they occur. The only instrument specifically designed to measure mood at work, the Job Affect Scale (Brief, Burke, George, Robinson and Webster, 1988), asks about average mood at work "over the past week."

The majority of research on mood at work, however, has focused on **trait** mood - a stable disposition to experience more or less positive or negative affect. Thus, someone may be considered a high negative affectivity person, prone to feeling stressed, nervous, and hostile. While trait mood research is interesting and useful, in moving to this personality-like conceptualisation, researchers are losing sight of the role played by real-time "hot" affect at work. Someone may be intensely angry with their superior from 10:27 to 10:38 a.m., very proud and happy at 3:15 because they have successfully completed a big project, or generally in a bored and listless mood on Monday the 26th regardless of whether or not they are chronically high or low on trait negative affectivity.

One might ask whether transient mood or short-lived emotions play an important role in organisational behaviour. Weiss and Cropanzano's Affective Events Theory (1996) suggests that they do. These authors believe that transient mood and emotions are likely to lead to impulsive behaviour at the time the states are being experienced. For instance, one might kick a malfunctioning photocopier while feeling intense frustration, or walk out of a meeting in a fit of anger. They also propose that the sum of affective experiences over time accounts for some of the variance in more stable cognitions like job satisfaction and in carefully thought out decisions like quitting the job. Locke and Latham (1990, p. 230) state that "Emotions provide the psychological fuel for action." George and Brief (1996, p. 75) propose that "feelings, an integral aspect of the human experience, are central to obtaining a

richer understanding of work motivation.” Ashforth and Humphrey (1995, p. 98) cite ethnographic studies of the work experience, and allege that “the experience of work is saturated with feeling.”

In view of these statements that emotions at work are ubiquitous and important, it would be useful to find out which emotions occur at work and how often they occur. Alternatively, as has been tacitly assumed for decades, do people check their hearts at the door when they enter the highly regulated and ostensibly rational world of work? One purpose of the study that follows is to shed some light on the frequency with which various emotions are experienced (or admitted to be experienced) at work.

Measuring Emotion

There has been very little research on emotions experienced while working. This may be due to the fact that there are no useful measures of emotion available, so most researchers interested in affect at work have settled for assessing either state or trait mood. Unfortunately, commonly used mood measures are inadequate as measures of emotion for several reasons. First, because of the prevalence of a two dimensional model, nearly all mood measures contain adjectives related to high and low activation. Many of these descriptors clearly are not emotions. Sleepy, active, strong, dull, and drowsy are examples of this contamination with non-emotion constructs. Second, the dimension positive versus negative evaluation may be too gross for the wide variety of positive and negative emotions that exist. For instance, the negative emotion rage is quite different from fear, which is different from sadness in both causes and effects (Shaver, Schwartz, Kirson, and O'Connor 1987), and elation, gladness, and joy have been shown to be empirically discriminable (de Rivera, Possell, Verette, and Weiner, 1989). Third, adjectives that imply an object are not usually included in mood measures, as moods aren't supposed to have objects. Recall that emotions do have objects - one is angry **at** something, in love **with** someone. Thus, mood measures are both contaminated and deficient as measures of emotion. Obviously, we need a simple and straight forward way of assessing the emotions being experienced at a given moment at work before research aimed at testing Affective Events Theory and similar ideas can proceed.

Last year I began to design a study to test some of the propositions of Affective Events Theory. The study would utilise the experience sampling methodology (ESM), in which subjects would be buzzed several times each day, each time filling out a one page questionnaire about their emotions and activities at the moment. This method was chosen because emotions are so transient, they are best measured frequently and as they are occurring, rather than recalled or summarised over a period of time by the respondent. The later is likely to introduce a large amount of error into the measurement (Porac, 1987). Thus, I needed a short, easy to answer measure that encompassed the range of emotions most likely to occur at work.

I puzzled over to where to start in constructing such a measure. There are two extremes in the emotion literature: lexicons of all the emotion words in the English language, and short lists of three to eleven or so “basic” emotions. As an example of the former, Clore, Ortony, and Foss (1987) compiled a list of 585 English words (mostly adjectives) with affective content. Between 260 and 310 of these were classified as emotions through empirical or rational means. Shaver et al. (1987) began with a list of 213 nouns, and narrowed the list to 135 that their respondents consistently agreed were emotions. Clearly, it would be impractical in the extreme to ask ESM respondents to rate 310, or even 135 emotion words several times per day!

Another approach would be to adopt one of the typologies of basic emotions, such as those shown in Table 1, and ask respondents to rate only these few primary emotions each time they were buzzed. These lists have been generated by a variety of methods, such as universally distinguishable facial expressions; factor analysis, cluster analysis, or multi-dimensional scaling of lists of emotions; and studies of the emergence of emotions and use of emotion words in small children (see Plutchik, 1994). Some theorists believe that all non-basic emotions are a combination of the small number of basic or primary emotions, much as all visible colours are a combination of three primaries. There has been a substantial debate in the literature about the adequacy and need for lists of basic emotions (see Ortony and Turner, 1990 and replies to their article). Whether or not these basic emotions really are “basic,” some of them seem too extreme and intense to be likely to occur (or be admitted to)

frequently in the relatively controlled world of work, and thus not suited to my measurement needs.

The pilot study described below was designed to find out the relative frequency of the emotions people say they experience while working, and then to construct a brief inventory of emotions at work for use in the ESM study.

METHOD

One hundred sixteen university students who held or had held jobs participated in the study by filling out a survey during class time. Half the respondents were female and half were male. 65% were reporting on a part time job and 35% on a full time job. The types of jobs held were: 18% managerial/ professional, 11% clerical, 28% sales, 15% blue collar, 16% food service, and 12% missing or multiple categories. Additional data are now being collected from more experienced MBA and Executive MBA students.

Shaver et al.'s (1987) list of 135 nouns agreed to represent emotions was adopted as the starting point. Subjects were asked to report specifically on the job they presently held, or if not currently employed, the job they had held most recently. They rated the frequency with which they had felt each of the 135 emotions **while working** on that job. The emotions did not have to be because of the job, just experienced while at work. The rating scale was 1=never, 2=seldom, 3=occasionally, 4=often, 5=very often. Subjects were instructed to leave blank any emotion words which they did not understand or which simply did not make sense to them in the work context.

RESULTS

Frequency of Emotions

Table 2 shows the average frequency with which respondents reported experiencing each emotion. Items are arranged from highest to lowest frequency. Note that the emotions respondents stated they experienced most frequently were uniformly positive. Every emotion with a mean greater than 3.00 (occasionally) was positive. The most frequently occurring positive emotions were happiness (3.62), satisfaction (3.59), enjoyment (3.42), and enthusiasm (3.40), while the most commonly occurring negative emotions were

frustration (2.94) and aggravation (2.88). The least frequently appearing emotions tended to be very strong ones, such as terror, horror, agony, hysteria, misery, despair, ecstasy, and the like.

Some emotion words appeared to have little meaning to respondents, in that a large number of people declined to rate them. The word most frequently omitted was "ire," with just over half the people responding to this word. Other words which 20 or more people declined to rate included: woe, dejection, wrath, torment, scorn, rapture, mortification, ferocity, abhorrence, bliss, glumness, revulsion, euphoria, loathing, melancholy, jubilation, elation, glee, zeal, enthrallment, zest, gaiety, and joviality.

A striking feature of the table is the range reported for each emotion. For all 135 emotions, at least one person reported NEVER feeling that way at work, and at least one person reported feeling that way OFTEN or VERY OFTEN. Clearly people do experience emotions at work, and have a very wide range of emotional experiences while working.

Gender Differences in Emotions at Work

Stereotypes suggest that perhaps women are more emotional, and might report feeling emotions more frequently, or might experience different emotions than men, while working. As both males and females would be participating in the ESM study, it seemed prudent to check on the similarity or differences in emotional experiences between employed males and females. Independent sample t-tests were done between male and female respondents on each emotion word. In 15 cases the differences reached conventional levels of significance ($p < .05$), while in 14 cases the differences approached significance ($p < .10$). This is about double the rate of significant differences one might expect by chance alone. The majority of results suggest that men report more frequent, and more intense, emotions at work than do women - contrary to the popular stereotype of women being more emotionally-driven. Specifically, men more frequently experienced hate, jealousy, passion, ecstasy, desire, lust, bitterness, adoration, thrill, remorse, rejection, melancholy, shock, infatuation, arousal, attraction, ferocity, alarm, neglect, contempt, and vengefulness at work than did women. Women reported more frequently experiencing anxiety, hurt, enjoyment, satisfaction, cheerfulness, exasperation, and liking than men.

Job Characteristics as Elicitors of Emotion at Work

This study was NOT designed as a proper test of Affective Events Theory, but further breakdowns of these data may be suggestive in that regard. Weiss and Cropanzano (1996) suggested that aspects of the work environment may act as enablers of emotions. For instance, challenging and varied work may enable job incumbents to more frequently experience pride, satisfaction, and a sense of achievement. Work that allows or requires frequent contact with others may enable both positive and negative emotions directed toward others, such as pity, contempt, hate, love, caring, and infatuation. If the work setting is important in eliciting emotion, there should be differences in the frequency with which different emotions are reported by people holding different types of jobs. A very preliminary test of this hypothesis was made by comparing the emotional experiences of part time versus full time employees, and of incumbents in five different types of jobs.

Part time employees reported more frequently feeling ferocity and scorn than full time employees, while full time employees reported more frequently experiencing happiness, eagerness, liking, and amazement than part time employees. Only these six emotions differed between part and full time employees, and this number of significant results is about what would be expected by chance when conducting 135 independent t-tests. Nevertheless, the results are all in a direction consistent with the idea that full time jobs are more satisfying and involving for incumbents.

One-way analyses of variance were run on each emotion word across five job types: managerial/professional, clerical, sales, blue collar, and food service. For twelve emotions, significant differences were found. Passion was highest for managerial/professional jobs and lowest for blue collar jobs. Desire was highest for clerical jobs and lowest for blue collar jobs. Hostility was high for both blue collar and managerial/professional jobs, but much lower for clerical jobs. Delight, gladness, liking, and pleasure were all high for managerial/professional and clerical jobs, but low for the other job categories. Hope was also highest for managerial/professional and clerical employees, and lowest for food service employees. Enthusiasm and zest were considerably greater for managerial/professional employees than for others. Food service workers were lowest in enthusiasm, while blue

collar workers were lowest in zest. Perhaps surprisingly, displeasure was also highest for managerial and professional employees, followed by sales employees, with clerical employees reporting displeasure the least frequently. Clerical employees were lowest on arousal, while managers and professionals were highest. It is possible that more involving jobs, such as managerial and professional jobs, afford the greatest potential for feeling strong positive emotions when goals are met, and strong negative emotions when goals are frustrated. Most of the above results are reasonably consistent with stereotypic expectations for the various job types.

Perhaps the most surprising result for the job type and full versus part time analyses is the relatively small number of significant differences in average emotional experience, when job content, responsibility, and conditions are considerably different. As mentioned above, there is evidence that some portion of emotional experience and mood is due to stable personality factors such as trait negative and positive affectivity. It has also been found that long-term happiness is relatively independent of circumstances. People who win lotteries or who become paralysed in accidents eventually adapt to their circumstances and become almost indistinguishable from the general population in terms of their overall happiness (Brickman, Coates, & Janoff-Bulman, 1978). When emotion is measured in the aggregate (“in general, how **often** do you experience_____...”), these individual dynamics may sometimes dominate job effects.

Construction of the Job Emotion Scale (JES)

In selecting items for a brief measures of emotions, I considered several criteria. First, the words chosen had to be reasonably frequently experienced. There would be little point in including items on which there would be no variance because they are so rarely experienced. Second, the words chosen needed to represent the relevant basic emotion categories. Since I began with Shaver et al.'s (1987) list, I paid particular attention to their typology of emotion words (described below) in determining which categories should be covered. Third, I wished to include an equal number of positive and negative terms. There is evidence that there are more distinct negative emotions than positive emotions (c.f. Table

1), yet I didn't wish to risk affecting respondents' moods by presenting a disproportionately negative instrument.

Shaver et al. (1987) obtained similarity ratings on 135 emotions and conducted hierarchical cluster analyses. At the most global level, the emotion words could be clustered as positive or negative, with the exception of surprise, which many theorists feel isn't really an emotion. At the next level, five basic emotion categories emerged: love, joy, anger, sadness, and fear. Below these five were 25 more specific sets of words. For instance, under love the subordinate categories were named affection (containing 10 terms), lust (five terms), and longing (one term). Shaver et al.'s names for each of the 25 categories and the superordinate category to which each belongs can be seen in the left-most two columns of Table 3.

The number of subjects in my study precluded factor or cluster analyses using all 135 emotion terms at once, so a combination of rational and empirical analysis strategies was used. First, the average frequency of terms in each of Shaver et al.'s categories was calculated (see column three of Table 3). Some of Shaver et al.'s categories contained only a very few emotion words, and/or were uncommon at work, such as the categories named longing, lust, relief, enthrallment, torment, shame, envy, sympathy, suffering, horror, and surprise. Terms associated with these categories were not retained in the scale. If the category itself seemed common or important, then the two words which occurred most frequently at work in that category were considered candidates for inclusion in the scale. The exception to this selection rule was that "satisfaction," the second most commonly occurring term under Cheerfulness, was not retained because in the work setting satisfaction seems to have a specific and more cognitive meaning. As I intend to correlate scores on the Job Emotion Scale with standard measures of job satisfaction in the ESM study, I did not want to inflate the relationship by building in item overlap. Enjoyment, the third most common Cheerfulness term, was used in place of satisfaction.

Factor analyses were subsequently performed on these smaller lists of positive and negative words. Terms associated with the categories irritation and exasperation were consistently highly correlated, so a single term, "frustration," was chosen to represent this construct. As Cheerfulness was by far the most common category, two terms were chosen

to represent it: happiness and enjoyment. Contentment was also represented by two terms, contentment and pleasure, partly to increase the number of positive terms to eight to balance the eight needed to cover the more complex negative emotion domain.

Shaver et al. used noun forms, but for the construction of the Job Emotion Scale, the items were changed to the adjective form. Terms ultimately adopted for positive emotions were: *liking for someone or something, happy, enthusiastic, pleased, proud, optimistic, enjoying something, and content*. Alpha for this scale was .86, and the mean frequency of the items selected was 3.23. Negative adjectives were *depressed, frustrated, angry, disgusted, unhappy, disappointed, embarrassed, and worried* (alpha .81, mean frequency 2.53). In the ESM study, instructions to the subjects were, "When the buzzer rang, to what extent were you feeling each of the following things?" They then rated each term using the a five point scale: 1 = not at all 2 = a little 3 = moderately 4 = quite a bit 5 = extremely.

The items chosen represent six of Shaver's ten positive emotion subcategories, and 7 of his 14 negative emotion subcategories. Principle components analysis with varimax rotation of the 16 words revealed four factors, the first comprising all eight positive items and accounting for 27% of the variance (Eigen value = 4.17), the second featuring heavy loadings on depression, disappointment, frustration, unhappiness, and worry (22% variance, Eigen value 3.43), the third containing anger and disgust (7% variance, Eigen value 1.03), and the final factor having a large loading only for embarrassment (6% variance, Eigen value 1.02). Rotated loading are shown in Table 4. A scree test suggests that factor extraction could be cut off at two factors, which could readily be labelled positive emotions and negative emotions. The correlation between the means on the positive and negative subscales was .05, suggesting that the frequencies with which the two types of emotions occur are independent. For some purposes, researchers may wish to sum the items to represent positive and negative emotions. However, analysis at the level of individual items (especially summed over repeated measurement periods) is also likely to be useful. For instance, one might ask which job or supervisor characteristics are associated with the occurrence of depression rather than anger, or which specific emotions precede a decision to quit.

For purposes of comparison, the items in the Job Emotion Scale are listed against those of two other widely used scales in research on job affect (Table 5). There is very little overlap, and as intended, the emotion items have a clearer focus on a cause or object. For instance, one is usually disgusted at or because of something specific, angry at something, liking something or someone, disappointed in something, embarrassed because of something. The emphasis on activation or arousal seen in the mood literature does not appear in the emotion scale.

CONCLUSIONS

The frequency data do suggest that a wide range of emotions occur at work, with moderately pleasant feelings such as happiness, enjoyment, and enthusiasm being quite common. Intensely positive emotions such as euphoria and ecstasy are uncommon, as are intensely negative feelings. Emotions seem worthy of further study, and the Job Emotion Scale proposed in the paper may be a useful instrument in this endeavour.

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Table 1
Illustrative Typologies of Basic Emotions

Izard	Ekman	Plutchik
Joy	Joy	Joy Anticipation Acceptance
Interest		
Surprise	Surprise	Surprise
Fear	Fear	Fear
Anger	Anger	Anger
	Sadness	Sadness
Disgust	Disgust	Disgust
Contempt		
Distress		
Guilt		
Shame		

Table 2

Descriptive Statistics on Rated Frequency of Emotions

	N	Minimum	Maximum	Mean	Std. Deviation
HAPPINESS	115	1.00	5.00	3.62	.95
SATISFACTION	115	1.00	5.00	3.59	.99
ENJOYMENT	114	1.00	5.00	3.42	1.02
ENTHUSIASM	108	1.00	5.00	3.40	1.09
CHEERFULNESS	112	1.00	5.00	3.29	1.13
OPTIMISM	105	1.00	5.00	3.26	1.21
PLEASURE	115	1.00	5.00	3.20	1.06
AMUSEMENT	106	1.00	5.00	3.14	1.16
EXCITEMENT	116	1.00	5.00	3.12	.94
PRIDE	116	1.00	5.00	3.10	1.05
JOY	116	1.00	5.00	3.10	.92
RELIEF	112	1.00	5.00	3.10	1.04
LIKING	110	1.00	5.00	3.05	1.11
EAGERNESS	102	1.00	5.00	3.00	1.10
HOPE	115	1.00	5.00	3.00	1.15
GLADNESS	114	1.00	5.00	2.95	1.05
FRUSTRATION	114	1.00	5.00	2.94	1.08
AGGRAVATION	98	1.00	5.00	2.88	1.12
SURPRISE	113	1.00	5.00	2.88	1.08
WORRY	116	1.00	5.00	2.85	.90
CONTENTMENT	102	1.00	5.00	2.79	1.15
DELIGHT	115	1.00	5.00	2.79	1.00
ANGER	116	1.00	5.00	2.78	.93
ANNOYANCE	113	1.00	5.00	2.72	1.08
TRIUMPH	105	1.00	5.00	2.69	1.08
COMPASSION	107	1.00	5.00	2.67	1.00
CARING	107	1.00	5.00	2.67	1.04
NERVOUSNESS	115	1.00	5.00	2.65	.97
TENSENESS	106	1.00	5.00	2.64	1.07
IRRITATION	110	1.00	5.00	2.62	1.15
JOVIALITY	88	1.00	5.00	2.59	1.22
DISLIKE	114	1.00	5.00	2.59	1.10
DISAPPOINTMENT	116	1.00	5.00	2.52	.95
ANXIETY	111	1.00	5.00	2.50	.95
AMAZEMENT	106	1.00	5.00	2.49	1.10
AFFECTION	111	1.00	5.00	2.48	1.15
AGITATION	99	1.00	5.00	2.46	1.07
ATTRACTION	110	1.00	5.00	2.45	1.08
JOLLINESS	103	1.00	5.00	2.44	1.10
UNHAPPINESS	116	1.00	5.00	2.40	.94
FONDNESS	102	1.00	5.00	2.38	1.03
DESIRE	116	1.00	5.00	2.36	1.19
SYMPATHY	115	1.00	5.00	2.34	1.04
EMBARRASSMENT	116	1.00	4.00	2.34	.91
EXHILARATION	100	1.00	5.00	2.30	1.00
APPREHENSION	102	1.00	5.00	2.29	.99
GAIETY	95	1.00	5.00	2.28	1.17
THRILL	110	1.00	5.00	2.28	1.10
DISPLEASURE	111	1.00	5.00	2.27	1.01

	N	Minimum	Maximum	Mean	Std. Deviation
DEPRESSION	116	1.00	5.00	2.27	1.07
ZEST	86	1.00	5.00	2.26	1.18
PANIC	115	1.00	5.00	2.25	1.03
UNEASINESS	109	1.00	5.00	2.24	.97
LOVE	112	1.00	5.00	2.23	1.13
SENTIMENTALITY	105	1.00	5.00	2.23	1.10
GRUMPINESS	97	1.00	5.00	2.22	1.00
ASTONISHMENT	102	1.00	5.00	2.22	1.08
LONGING	105	1.00	5.00	2.21	1.05
REGRET	112	1.00	5.00	2.20	.92
ENTHRALLMENT	88	1.00	5.00	2.17	1.02
PASSION	114	1.00	5.00	2.17	1.22
HOSTILITY	111	1.00	5.00	2.15	.95
HATE	116	1.00	5.00	2.15	1.02
EXASPERATION	97	1.00	5.00	2.13	1.05
ZEAL	72	1.00	5.00	2.12	1.16
DISGUST	115	1.00	5.00	2.11	1.02
INSECURITY	111	1.00	5.00	2.11	1.14
SADNESS	115	1.00	5.00	2.10	.92
GLEE	92	1.00	4.00	2.10	1.02
TENDERNESS	112	1.00	5.00	2.09	1.05
ELATION	92	1.00	5.00	2.09	1.01
INSULT	109	1.00	5.00	2.07	.97
JUBILATION	89	1.00	4.00	2.07	.94
GROUCHINESS	96	1.00	5.00	2.06	.99
CONTEMPT	101	1.00	5.00	2.04	1.05
DISTRESS	109	1.00	4.00	2.02	.97
ANGUISH	104	1.00	5.00	2.00	.88
ENVY	110	1.00	5.00	1.99	.98
RESENTMENT	104	1.00	5.00	1.99	.96
DREAD	107	1.00	5.00	1.97	.98
OUTRAGE	106	1.00	4.00	1.97	.96
ISOLATION	110	1.00	5.00	1.96	1.06
MELANCHOLY	93	1.00	5.00	1.96	.97
ALIENATION	107	1.00	5.00	1.95	1.03
GLOOM	106	1.00	4.00	1.95	.94
FEAR	116	1.00	5.00	1.95	.94
RAGE	106	1.00	5.00	1.94	.97
LONELINESS	113	1.00	5.00	1.92	1.02
LOATHING	94	1.00	5.00	1.91	1.12
EUPHORIA	95	1.00	5.00	1.91	1.07
PITY	113	1.00	5.00	1.89	.93
AROUSAL	100	1.00	5.00	1.88	1.06
BITTERNESS	113	1.00	5.00	1.87	.97
HURT	113	1.00	5.00	1.86	.91
INFATUATION	97	1.00	5.00	1.85	1.07
FURY	105	1.00	5.00	1.84	.95
ALARM	109	1.00	5.00	1.83	.90
HOMESICKNESS	114	1.00	5.00	1.82	1.16

	N	Minimum	Maximum	Mean	Std. Deviation
REVULSION	84	1.00	5.00	1.82	.93
GUILT	114	1.00	4.00	1.82	.90
SHOCK	110	1.00	4.00	1.81	.88
GLUMNESS	89	1.00	4.00	1.81	.92
BLISS	94	1.00	4.00	1.81	.88
ABHORRENCE	72	1.00	5.00	1.81	.96
HUMILIATION	111	1.00	5.00	1.78	.87
DISMAY	97	1.00	5.00	1.78	1.03
REJECTION	114	1.00	5.00	1.78	.77
VENGEFULNESS	90	1.00	5.00	1.78	.97
LUST	108	1.00	5.00	1.77	1.10
FEROCITY	95	1.00	5.00	1.77	.99
JEALOUSY	115	1.00	5.00	1.76	.92
MORTIFICATION	89	1.00	5.00	1.75	.94
HOPELESSNESS	113	1.00	5.00	1.75	.93
NEGLECT	104	1.00	4.00	1.74	.81
RAPTURE	92	1.00	5.00	1.74	.91
ADORATION	106	1.00	4.00	1.74	.87
SCORN	83	1.00	5.00	1.72	.98
TORMENT	96	1.00	5.00	1.72	1.01
SUFFERING	112	1.00	5.00	1.71	.96
DEFEAT	110	1.00	5.00	1.68	.88
WRATH	87	1.00	4.00	1.68	.84
DEJECTION	91	1.00	4.00	1.65	.77
FRIGHT	113	1.00	5.00	1.65	.96
SORROW	112	1.00	4.00	1.63	.75
IRE	61	1.00	4.00	1.62	.86
REMORSE	97	1.00	4.00	1.62	.82
GRIEF	105	1.00	4.00	1.61	.86
SPITE	100	1.00	5.00	1.60	.90
ECSTASY	108	1.00	5.00	1.59	.96
DESPAIR	104	1.00	4.00	1.55	.75
SHAME	115	1.00	5.00	1.55	.83
MISERY	112	1.00	4.00	1.54	.72
WOE	87	1.00	4.00	1.54	.74
HYSTERIA	101	1.00	5.00	1.49	.78
AGONY	103	1.00	5.00	1.44	.81
HORROR	116	1.00	5.00	1.38	.80
TERROR	113	1.00	5.00	1.32	.74

Table 3
Shaver et al.'s Categories, Category Frequency at Work, and Items Chosen for Job Emotions Scale

Shaver et al.'s Category Name	Number of Terms	Mean Category Frequency	Items Chosen for JES* (Item Frequency)
LOVE			
Affection	10	2.40	Liking (3.05)
Lust	5	2.05	--
Longing	1	2.21	--
JOY			
Cheerfulness	17	2.70	Happiness (3.62) Enjoyment (3.42)
Zest	6	2.68	Enthusiasm (3.40)
Contentment	2	3.05	Contentment (2.79) Pleasure (3.20)
Pride	2	2.90	Pride (3.10)
Optimism	3	3.10	Optimism (3.26)
Enthrallment	1	1.96	--
Relief	1	3.10	--
ANGER			
Irritation	6	2.44	--
Exasperation	2	2.57	Frustration (2.94)
Rage	15	2.02	Anger (2.78)
Disgust	3	1.98	Disgust (2.11)
Envy	2	1.87	--
Torment	1	1.72	--
SADNESS			
Suffering	4	1.76	--
Sadness	12	1.87	Unhappiness (2.40) Depression (2.27)
Disappointment	3	2.22	Disappointment (2.52)
Shame	4	1.80	--
Neglect	12	1.92	Embarrassment (2.34)
Sympathy	2	2.13	--
FEAR			
Horror	9	1.72	--
Nervousness	8	2.40	Worry (2.85)

*Noun form as in Shaver et al. and pilot study. Terms were changed to adjectives for the JES.

Table 4
Rotated Factor Loadings for Items in the Job Emotion Scale

Emotions	Factor 1	Factor 2	Factor 3	Factor 4
Liking for something or someone	.79			
Happy	.63			
Enthusiastic	.74			
Pleased	.69			
Proud	.62			
Optimistic	.71			
Enjoying something	.73			
Content	.75			
Depressed		.68		
Frustrated		.67		
Unhappy		.76		
Disappointed		.57		
Worried		.68		
Angry			.61	
Disgusted			.85	
Embarrassed				.77

Table 5
Comparison of Items in the Job Emotion Scale to Other Affect Scales

Job Emotion Scale	Job Affect Scale ¹	PANAS ²
Liking for someone or something		
Happy		
Enthusiastic	Enthusiastic	Enthusiastic
Pleased		
Proud		Proud
Optimistic		
Enjoying something		
Content		
Depressed		
Frustrated		
Angry		
Disgusted		
Unhappy		
Disappointed		
Embarrassed		
Worried		
	Nervous	Nervous
	Jittery	Jittery
	Distressed	Distressed
	Active	Active
	Strong	Strong
	Excited	Excited
	Hostile	Hostile
	Drowsy	
	Fearful	
	Dull	
	Sleepy	
	Calm	
	At rest	
	Placid	
	Relaxed	
	Sluggish	
	Peppy	
	Scornful	
	Elated	
		Determined
		Interested
		Inspired
		Attentive
		Afraid
		Alert
		Guilty
		Upset
		Scared
		Irritable
		Ashamed

¹ Brief, Burke, George, Robinson, & Webster, 1988.

² Watson, Clark, & Tellegen, 1988.