

Observing Negative Events at Work and Their Relationship to Job Stress and

Well-Being

Senior Thesis Proposal

December 2, 2012

Aurora J. Dixon

Advisor: Dr. Ruth Kanfer

Georgia Institute of Technology

**Abstract**

Although changes in employment status have long been recognized as important life events in relation to psychological well-being (e.g. Holmes & Rahe, 1967), there has historically been a deficit in research on additional work events. In 2012, Kanfer and her graduate students developed a scale, the Work Events Inventory (WEI), in order to assess work events individually. The proposed study will build upon the WEI to include observed events as well as direct events, and look at the relationship between experience of these events and different work-related outcomes, specifically job stress and well-being. It is expected that the inclusion of vicariously experienced events will provide greater understanding of the impact that work may have on job stress and well-being.

## Observing Negative Events at Work and Their Relationship to Job Stress and Well-Being

### Overview

The topic of life events and stress has been of growing importance in the psychological literature over the past few decades. Research on the subject can be usefully organized into two areas: (1) determining the types of events that have the most impact on well-being (Hobson & Delunas, 2001; Holmes & Rahe, 1967; Mayberry, Neale, Arentz, & Jones-Ellis, 2007), and (2) determining the ways in which people cope with these events most effectively (Brown, Challagalla, & Westbrook, 2005; Luhmann, Eid, Hofmann, & Lucas, 2012). To date, the most studies examining the events that affect adult well being have focused broadly on events in different facets of life, such as changes in marital or financial status or illness/injury (e.g., Hobson & Delunas, 2001; Holmes and Rahe, 1967; also see Kessler, 1997). These analyses have consistently included work events, such as job loss. Despite the consistency of changes in employment status ranking among the most demanding life events, there have been few attempts to identify other important and demanding work-related events. In order to understand the impact of stressful work events on important aspects of work adjustment, such as job stress, a list of these events and measure of the adjustment to these events a necessary tool.

The Work Events Inventory (WEI; Kanfer et al., 2012) is a measure currently in development to redress the deficit in available tools. Initial development of the WEI identified a list of 28 negative work event items through a review of literature. The frequency of these items was assessed with a sample of adult volunteers. Consistent with the methodology used in life event scales, the WEI asked respondents to respond to events that were directly experienced. In the workplace, many stressful events can not only be directly experienced, but also observed and

vicariously experienced, such as when one witnesses a co-worker being fired. The proposed study will build on the work previously done with the WEI by investigating the impact of observed negative events in the workplace. There are two goals of this thesis project: (1) to broaden the current scope of the events analyzed by the WEI, and (2) to assess the relationship between experience of these events and both job stress and well-being. The findings are expected to provide a more comprehensive assessment of the experience of work and its effects on stress and coping.

In the remainder of the introduction, I describe some of the research conducted on life events and work events, addressing the important concepts and implications of this research. In addition, I address the questions remaining about these concepts and implications. I discuss the exploration and expansion of the WEI to include the vicarious experience of events, and the investigation of the relationship between these events and job-related outcomes. In the methods section, I describe the procedures to develop the list of work-related items and the use of the broadened WEI to examine the impact of experience of these events on job stress and well-being through survey of employed adults. In the analysis and anticipated results section, I map out the analyses I will use to assess the relationship between the events and job stress and well-being, as well as the trends I expect to see. Finally, in the discussion section, I will state the implications of the expected results and future directions of research.

## **Introduction**

Research on the relationship between life events, stress and coping has burgeoned since the seminal publication of the Holmes and Rahe (1967) Social Readjustment Ratings Scale (SRRS). Holmes and Rahe developed this scale of common stressful life events in order to measure and study the impact of these events on individual well-being. The SRRS presented a

list of 43 positive and negative life events to participants. Participants were asked to rate these events on the amount of adjustment needed for each event, in relation to an arbitrary value of 500 for the first event, marriage. This procedure resulted in a scale of these 43 events ranked by the amount of adjustment necessary for each.

The primary research by Holmes and Rahe (1967) has led to further research on these events in a more modern light. Hobson and Delunas (2001) studied the revised SRRS in order to assess the 51 life events and correct some of the aspects of the original scale that were out of date or biased in some other way. They looked at the frequency of stressful events on the SRRS and found changes that they link to changes in the structure of society. Research on alternative measures of life events has continued as well. Mayberry, Neale, Arentz, and Jones-Ellis (2007) tested and supported the validity of the Negative Events Scale as a measure of stressful events and their impact on well-being. They measured the frequency and intensity of stress caused by forty different life events. They then assessed the impact of these events on the well-being of the participants. This reassessment of the scale affirmed the validity of the measure, highlighting the continued importance of understanding life events. More recently, Luhmann, Eid, Hofmann, and Lucas (2012) conducted a meta-analysis of research regarding cognitive and affective well-being and highly stressful life events. The vast number of studies that they analyzed, as well as the significant impact of different events on well-being shows the continued interest in and importance of research about life events.

In each of the previously mentioned studies, work events are often ranked among the most stressful life events. Accordingly, a growing amount of research has focused on the impact of work events on job stress and other work outcomes (e.g. Brown, Westbrook, & Challagalla, 2005; Mignonac & Herrbach, 2004). For example, Mignonac and Herrbach (2004) found that

affective events taking place in work environments impact affective states. They surveyed a sample of managers and found that both positive and negative events had effects on emotional states, which in turn were significant predictors of job attitudes. However, despite an understanding of the importance of stressful work events on job attitudes, there has been no scale developed to date to specifically assess work events.

In 2012, Dr. Kanfer and her graduate students developed the Work Events Inventory (WEI) in order to address this deficit in understanding of work events. They developed a list of 28 items through a review of literature and interviews with employed adults. Once the WEI was developed, it was given to a sample of adult volunteers along with demographic measures. The volunteers were asked to rank the events on the level of adjustment difficulty for each event. The scale was then further developed to include the adjustment difficulty scores.

The proposed study is an attempt to expand the scope of the WEI and a continuation of the validation efforts for the measure. The research done on life and work events in the past has historically measured the impact of direct experience of events such as job and has overlooked events that may have been observed. Research regarding vicarious learning, such as that by Bandura, Ross, and Ross (1963) and others (see, for example, Bandura, 1977), indicates that the observation of others provides both emotional and behavioral responses in individuals. This vicarious learning and experience of emotion may also occur when a person witnesses a stressful event. Numerous studies in the area of observational learning, for example, show that observing an event elicits an emotional and empathetic response similar to that obtained when an event is experienced directly (e.g., see Green & Osbourne, 1985). This empathetic reaction to events consists of vicariously experiencing the emotions of the person whom one is observing, in a sense “sharing” the experience. This mutual experience of emotion can be applied to the

observation of another person going through a life or work event. Based on this research, and the importance of work events on well being, it is clear that it is important to understand the impact of work events, both directly and vicariously experienced. I hypothesize that measuring the experience of vicarious work events will provide predictive validity for job measures above and beyond that of only directly experienced events.

In addition to studying the incremental validity of including vicarious experience in analyses of work events, the study will also assess the impact of the events on the WEI on job related constructs. Measures of job stress and the construct of job stress focus on the stress caused by events that are directly connected to work (Parker & DeCurtis, 1981). Well-being, on the other hand, is impacted by many different types of events within many different contexts (Luhmann, Eid, Hofmann, & Lucas, 2012). Based on the nature of the constructs of job stress and well-being, I hypothesize that the direct and vicarious experience of work events will have a significant positive relationship with job stress, and a smaller, but still significant negative relationship with general well-being.

## **Method**

### **Participants**

A total of at least 200 participants will be recruited from the Mechanical Turk participant pool in order to achieve significant power. Mechanical Turk is a program in which employed adults can become participants in research with a token compensation system. This system has been used in previous research studies (e.g., Kanfer, Betts, Farmer, & Barnett, 2012; Paolacci, Chandler, & Ipeirotis, 2010). The participants must be in the age range of 21 to 65 years and have been engaged in full time employment for at least the past 12 months. Participants who took part in the original testing of the WEI will be excluded. Compensation for participation will

be consistent with time-based pay norms used in the Mechanical Turk system and determined after completion of the survey for the study.

### **Design**

The project will use a correlational design in order to assess the relationship between frequency and adjustment difficulty for the different items and job stress and well-being. Reports on frequency and adjustment on the WEI scale, including both observed and experienced work events, will be correlated with well-being and perception of job stress. In addition, hierarchical regressions will be conducted in order to examine the incremental validities of observed work events beyond directly experienced work events, as well as the incremental validity of the expanded WEI scale on job stress and well-being beyond that of the Holmes and Rahe (1967) SRRS.

### **Procedure**

#### *Development of observed work event items.*

The list of observed work events will be determined by a review of the literature on work stressors and a review of reported, unaccounted for, work stressors from the primary analysis of the WEI (Kanfer et al., 2012). The final list of these work events will be further evaluated in order to verify that the criteria for inclusion on the WEI are met. These criteria are that the event is observable, marks a change that needs to be met with either adjustment in life or work patterns, and is a discrete event in time. This list will be further reviewed and evaluated by a group of Industrial/Organizational Psychology graduate students in order to assess conformity of these events to the requirements of the WEI scale and for wording clarity.

*Survey Administration.*

Volunteers meeting the eligibility requirements will be informed about the nature of the study and given an informed consent form before beginning the survey online. The survey will consist of four sections. The first section of the survey will gather demographic and background information about the participants, such as gender, age, and work history. The next section of the survey will assess job stress and well-being. These measures will be presented before measuring experience of work events, in order to reduce the potential impact that assessing stressful events could have on reports of these job-related outcomes. This second section of the assessment will consist of the Satisfaction with Life Scale (SWLS) to assess general well-being (Deiner, Emmons, Larsen, & Griffen, 1985) and the Stress in General Scale (SIG) to assess job stress (Stanton, Balzer, Smith, Parra, & Ironson, 2001). The third section of the survey will consist of the Holmes and Rahe (1967) measure of life events including the work events on this measure. The final segment of the survey will consist of the WEI, beginning with the measure of observed events followed by the edited list of original events.

*Measures.*

*Work Events Inventory (WEI).* Participants will be asked to report a number between 0 and 99 of the times they have experienced each event listed on the WEI in the past 12 months in order to assess frequency of the events. Participants will also be asked to report their perception of adjustment necessary for experience of the event, using a scale ranging from little adjustment required (1) to extensive adjustment required (10).

*Satisfaction with Life Scale (SWLS).* The SWLS assesses general well-being, which is global well-being rather than well-being associated with certain judgment procedures, such as cognitive or affective evaluations (Deiner et al., 1985). The SWLS is a valid and reliable

measure that assesses global well-being and is applicable to members of different demographic groups. It consists of 5 self-report items to which participants respond using a 7 point Likert-type scale. The scale consists of the options: 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=neither agree nor disagree, 5=slightly agree, 6=agree, 7=strongly agree. Scores range from 5 to 35, with 5 indicating very low satisfaction with life, and therefore low general well-being, and 35 indication very high satisfaction and general well-being.

*Stress in General Scale (SIG).* The SIG assesses job stress for employed individuals in diverse work areas, and has been shown to have good validity and reliability (Stanton et al., 2001). The SIG consists of 18 items consisting of adjectives that could be used to describe one's job. Participants are asked to answer "yes," "no," or "?" as to whether or not the adjectives are descriptive of their jobs. A "yes" is coded as 3, a "no" as a 0, and a "?" as a 1.5. The majority of the items are measures of stress and are directly coded, but 5 items (calm, relaxed, under control, comfortable, and smooth running) are reverse-coded. A low score, with the lowest value at 0, indicates low job stress, and a high score, with the highest value of 54, indicates high job stress.

### **Analyses Planned and Expected Results**

In order to assess the correlation between observed work events and job stress and well-being, a number of steps must be taken. Descriptive statistics for the new WEI items must first be determined. Means and standard deviations of both readjustment difficulty and frequency of each new item will be calculated. In addition, the frequency of events as a function of different demographic traits, such as gender, age, and occupational field, will be assessed in order to determine if population trends for experiences exist.

Correlational analyses will be conducted between the original WEI items and the newly adjusted WEI. Additional correlations will be conducted on the original WEI and the job

outcomes being measured and the new WEI and job outcomes. Each item will be assessed individually as related to job stress and well-being. It is expected that the original WEI and the newly adjusted WEI will correlate positively with each other, but have a correlation substantially lower than 1.0. A hierarchical regression analysis will also be conducted to evaluate the incremental validity of observed event frequency on job stress above that provided by frequency of directly experienced events.

In addition, total WEI scores for frequency will be computed and correlated with both job stress and well-being. The hypothesis is that there will be a positive correlation between frequency scores of the WEI and both job stress and well-being. However, I also expect that the correlation between the WEI score and job stress will be significantly greater than that between the WEI score and well-being.

Finally, a hierarchical regression analysis will be conducted in order to determine whether the WEI accounts for variance in the job outcome measures above that accounted for by the measure of Holmes and Rahe (1967), the SRRS. I expect that the WEI will provide incremental predictive validity beyond that provided by the SRRS.

### **Discussion**

I expect the proposed study to result in a number of findings regarding the relationship between work events and job outcomes. The anticipated results regarding job stress and well-being have implications for work place experiences. I expect that not only direct experience of stressful work events but also the vicarious experience of stressful work events will have a positive impact on job stress and a negative impact on well-being. This will have consequences in how work place events should be managed. From this perspective, it may be useful to

evaluate whether managers should not only be aware of helping employees to deal with direct experience of stressful events, but also the experience of events through observation.

The expected additional information provided by the WEI over life event measures would imply the importance of a specific focus on work events, and other categories of events, rather than a large-scale analysis of these events as a whole construct. The information gathered through this thesis project and continued work on the WEI should direct research into specific areas in order to more fully develop discrete scales for different aspects of life. If the expected relationships are found between the events of the WEI and the two specific job outcomes, job stress and well-being, further study of additional job outcomes should be brought to the forefront of current research.

Analysis of the impact of work events on different job outcomes will help for a better understanding of the consequences of the experience of stressful events on the lives of employees. By understanding these consequences, workplaces might become increasingly positive components of peoples' lives.

## References

- Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.
- Bandura, A., Ross, D., & Ross, S. A. (1963). Vicarious reinforcement and imitative learning. *Journal of Abnormal and Social Psychology, 67*(6), 601-607.
- Brown, S. P., Challagalla, G., & Westbrook, R. A. (2005). Good cope, bad cope: Adaptive and maladaptive coping strategies following a critical negative work event. *Journal of Applied Psychology, 90*(4), 792-798.
- Deiner, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*(1), 71-75.
- Green, G. & Osbourne, J. G. (1985). Does vicarious instigation provide support for observational learning theories? A critical review. *Psychological Bulletin, 97*(1), 3-17.
- Hobson, C. J. & Delunas, L. (2001). National norms and life-event frequencies for the revised social readjustment rating scale. *International Journal of Stress Management, 8*(4), 299-314.
- Holmes, T. H. & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research, 11*, 213-218.
- Kanfer, R., Betts, M., Farmer, S., & Barnett, N. (2012). *Development of the Work Events Inventory: Event readjustment difficulty*. Atlanta, Georgia: Georgia Institute of Technology, Unpublished manuscript.
- Kessler, R.C. (1997). The effects of stressful life events on depression. *Annual Review of Psychology, 48*, 191-214

- Luhmann, M., Eid, M., Hofmann, W., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: A meta-analysis. *Personality Processes and Individual Differences, 102*(3), 592-615.
- Mayberry, D. J., Neale, J., Arentz, A., & Jones-Ellis, J. (2007). The negative event scale: Measuring frequency and intensity of adult hassles. *Anxiety, Stress, and Coping, 20*(2), 163-176.
- Mignonac, K. & Herrbach, O. (2004). Linking work events, affective states, and attitudes: An empirical study of managers' emotions. *Journal of Business and Psychology, 19*(2), 221-240.
- Paolacci, G., Chandler, J., & Ipeirotis, P.G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making, 5*(5), 411-419.