An Evaluation of Borg’s Cognitive and Affective Job Insecurity Scales

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Abstract
This study evaluates Borg’s (1992; Borg & Elizur, 1992) scale of affective and cognitive job insecurity. The goal was to answer the question whether the correlational pattern of affective job insecurity with other outcome variables is different or similar to the correlational pattern of cognitive job insecurity with the same variables. It could be similar because affective and cognitive job insecurity might be related aspects of the job insecurity experience. It could be different because Borg’s affective job insecurity scale might be rather the affective reaction to imagining losing one’s job. An empirical tested with a sample of German nonmanagerial employees showed the independence of affective and cognitive job insecurity and revealed significantly different correlational patterns of affective vs. cognitive job insecurity. It is argued that Borg’s affective job insecurity scale can be understood as an indirect measure of the affinity to the job.

Keywords: affective and cognitive job insecurity; job attitudes; performance

1. Introduction
Job insecurity has already become a widespread phenomenon (Burchell, 2002) and it is likely to grow further in the future due to the effects of globalization (Gunter & van der Hoeven, 2004). Consequently, job insecurity has been considered as one of the most important topics of applied psychology for the third millennium (Fernandez-Ballesteros, 2002). This is reflected in the increase of research into job insecurity over the last few years in many countries (for reviews see Cheng & Chan, 2008; De Witte, 1999, 2005; Gilboa, Shirom, Fried, & Cooper, 2008; Sverke, Hellgren, & Näswall, 2002). Despite this research increase, there has not been a consensus what the best measure of job insecurity is. Instead, many measures have been used but there is a lack of studies that evaluate their psychometric qualities. Our study aims to fill this gap by examining the two-dimensional job insecurity scale developed by Borg (1992; largely also published in Borg & Elizur, 1992).

Borg’s (1992; Borg & Elizur, 1992) job insecurity scale has the potential to be an important measure for job insecurity because it aims to cover two dimensions of job insecurity, cognitive and affective job insecurity. Cognitive job insecurity captures the cognitive elements of the job insecurity experience, such as the perception of the likelihood of losing one’s job. The second dimension of job insecurity is the affective dimension, and is said to capture the emotional elements of the job insecurity experience, such as being afraid of losing one’s job. Borg’s (1992; Borg & Elizur, 1992) based the differentiation between cognitive and affective job insecurity on findings in the anxiety literature. Liebert and Morris (1967) were the first to show that test anxiety has two dimensions, which they called worry and emotionality. They argued that the worry component of test anxiety (the cognitive dimension) captures the thinking about the consequences of failing a test, whereas emotionality (the affective dimension) reflects the physiological-affective elements of anxiety such as feeling nervous. Since their article, many other anxiety studies (e.g., Hong & Karlstensson, 2002; Minor & Gold, 1985; Morris, Davis, & Hutchings, 1981) have found evidence for the differentiation of these two dimensions of anxiety.

In two studies Borg (1992; Borg & Elizur, 1992) reported evidence that the items of this questionnaire loaded on two separate factors. However, this finding has not been replicated so far. The first aim of the current study is therefore to analyze whether the affective and the cognitive dimension of job insecurity can be reliably differentiated.
The second aim of this study is to test whether Borg’s affective job insecurity scale correlates differently with outcome variables like job attitudes and performance in comparison to the cognitive job insecurity scale. Research has now well established that cognitive job insecurity correlates negatively with work attitudes (e.g., job satisfaction, organizational commitment), intention to stay, and performance (Cheng & Chan, 2008; Gilboa et al., 2008; Sverke et al., 2002). It is, however, unclear whether affective job insecurity shows a similar or a different correlational pattern with these outcome variables as cognitive job insecurity. There are reasons for both views.

On the one hand, if Borg’s affective job insecurity scale captures the emotional elements of the job insecurity experience, affective and cognitive job insecurity should correlate similarly with variables like job satisfaction: If job insecurity is a violation of the psychological contract between employers and their employees (e.g., Davy, Kinicki, & Scheck, 1997; De Cuyper & De Witte, 2006), people in organizations that plans a downsizing campaign should not only report having an insecure job (i.e., high cognitive job insecurity) but should also show emotional reactions to this threat (i.e., high affective job insecurity). A violation of the psychological contract has been shown to be related to a broad spectrum of work-related attitudes and work behaviors (Zhao, Wayne, Glibkowski, & Bravo, 2007).

On the other hand, a close look at the items reveals that Borg’s affective job insecurity scale could also be understood as tapping an emotional reaction to imagining losing one’s job. For example, if people endorse items like “The thought of losing my job scares me”, they may imagine having an insecure job for the first time when they fill out the questionnaire. Losing one’s job would then be a purely hypothetical event, but could still trigger emotional reactions. Alternatively, people may have good reasons to perceive their job as insecure and such items may just activate emotions. In other words, people may report the same emotional reactions to the affective job insecurity scale even though losing their job is a hypothetical event for some and a fairly real even for others. Thus, the wording of the items seems to be ambiguous. However, if Borg’s affective job insecurity scale taps the imagined emotional reaction to a hypothetical loss of one’s job, then this reaction can be assumed to be stronger the more satisfied people are with their job, the more they feel committed to their job, and the more they feel that they are treated fairly. This would mean that Borg’s affective job insecurity scale could also be an indirect indicator of the affinity to the job.

Empirically, there is a small amount of evidence supporting both the view of a similar and a different correlational pattern. Borg (1992; Borg & Elizur, 1992) reported that both affective and cognitive job insecurity correlate positively with external locus of control. However, Borg (1992) also mentioned that affective job insecurity correlated positively with affective commitment and job involvement whereas cognitive job insecurity correlated negatively with these two variables. In addition, Borg reported that affective job insecurity correlated negatively with normative commitment whereas cognitive correlated positively with it. Given that there are empirical and theoretical arguments for both views on Borg’s (1992; Borg & Elizur, 1992) affective job insecurity scale, we propose an open research question whether the correlational pattern of affective job insecurity with external variables is different or similar to the correlational pattern of cognitive job insecurity. To examine this question, we used important outcome variables that have been investigated in previous job insecurity research: job satisfaction, affective commitment, justice perceptions, turnover intention, and performance (both in-role behavior and organizational citizenship behavior, OCB).

2. Materials and Methods

2.1 Participants

The data used in this study were collected from a German wholesaler for electronic products. The company was neither in a crisis nor planning any restructuring during the time the data were collected. The CEO of the company supported the research project subject to the condition that employees did not fill out the questionnaires during working hours. We guaranteed confidentiality and explained that personal data would only be used by us and would not be made available to the company. We used anonymous personal code numbers to match supervisors’ performance ratings to the self-ratings of employees. Questionnaires were distributed among all 183 nonmanagerial, primarily blue-collar employees. 152 questionnaires were returned (i.e., a response rate of 83%). All 24 supervisors (including the CEO) rated the performance of their direct subordinates. Because 9 employees removed the anonymous personal code numbers, matching was not possible for these participants and they were excluded. All analyses were conducted with the remaining 143 participants apart from the correlations with absenteeism because 7 employees had just joined the company and we could not obtain reliable absenteeism data for them.
The average age of the nonmanagerial employees was 40.0 years (SD = 10.7) and their average organizational tenure amounted to 12.3 years (SD = 9.1). One hundred and one participants were male (70.6%), and eleven worked part-time (7.7%). According to the supervisors’ questionnaire data, employees had, on average, 17.1 hours per week contact with their supervisor (SD = 15.5) and the dyad had existed on average for 9.9 years (SD = 7.2).

2.2 Measures

We used a Likert response scale ranging from 1=strongly disagree to 7=strongly agree for all subjective measures, which we will now describe in detail.

Job insecurity. Affective job insecurity was measured with Borg’s (1992; Borg & Elizur, 1992) three-item scale. The items are: “The thought of losing my job troubles me”, “The thought of losing my job worries me”, and “The thought of losing my job scares me” [own translations]. Cognitive job insecurity was measured with the four items of Borg’s cognitive job insecurity scale that focus exclusively on the perception of the likelihood of losing one’s job (Borg, 1992; Borg & Elizur, 1992). These items are: ”My job is secure”, ”In my opinion, I will keep my job in the near future”, ”In my opinion, I will be employed for a long time in my present workplace”, and ”My workplace is secure in every respect” (all items reverse-scored). Three of the original cognitive job insecurity items (“I consider my career as secure”, “I clearly know my chances for advancement in the coming years”, and “I look forward with confidence to the introduction of new technologies”) were omitted because they focus on specific work aspects and we wanted to keep the same global focus on losing one’s job in both subscales of job insecurity.

Job satisfaction was assessed with nine items that asked about the following facets of job satisfaction: (a) work itself, (b) chances of promotion, (c) opportunities for personal development, (d) pay, (e) colleagues, (f) supervisor, (g) upper management, (h) information and communication within the company, and (i) the company as a whole. These items started with ”Generally speaking, I am very satisfied with ...”. In addition, two global items of the Job Diagnostic Survey (Hackman & Oldham, 1980) were used: ”I am generally satisfied with the kind of work I do in this job” and ”Generally speaking, I am very satisfied with this job.”

Commitment was measured with Allen and Meyer’s (1990) eight-item affective commitment scale. Schmidt, Hollmann, and Sodenkamp (1998) report a Cronbach’s alpha of .76 for the German version. A sample item is “I really feel as if this organization’s problems are my own.”

Justice perceptions. Two aspects of justice perceptions, procedural and interactional fairness, were assessed. Procedural fairness was measured with Niehoff and Moorman’s (1993) six-item measure. A sample item is “All job decisions are applied consistently across all affected employees.” Niehoff and Moorman report a Cronbach’s alpha of .85 for this scale. Interactional fairness was assessed with Moorman’s (1991) six-item scale, with minor changes (present tense instead of past tense). A sample item was “My supervisor considers my viewpoint.” Moorman reported a Cronbach’s alpha of .93 for this scale.

Turnover intention was measured with the following two items: ”I frequently think about quitting this job” and ”I am seriously considering leaving [name of the company] within the next few months”.

In-role behavior and OCB was assessed with a German questionnaire developed by Staufenbien and Hartz (2000). Its five subscales (with five items each) cover in-role behavior and four facets of OCB. The in-role behavior subscale items are very similar to the in-role behavior scale developed by Williams and Anderson (1991). The four facets of OCB are altruism (sample item for self-rated perspective: ”I voluntarily take the initiative to help new colleagues”), conscientiousness (”I am always punctual”), sportsmanship (“I often criticize my colleagues”, inverted), and civic virtue (“I make innovative suggestions to improve the quality in the department”). The subscale measures can be combined into one general OCB measure (Staufenbien & Hartz, 2000). Two forms parallel in wording were used, one for self-ratings and one for supervisor ratings.

Absenceism data were also collected because it is an important aspect of withdrawal behavior, another major dimension of the individual-level criterion space (Harrison, Newman, & Roth, 2006). Data from the last two years were extracted from personnel files. Holidays and vacations were excluded.

3. Results

3.1 Factor analyses on the job insecurity measures

First, the job insecurity items were subjected to an exploratory factor analysis by use of principal axis factoring with oblique direct quartimin rotation.
The analysis revealed two factors with eigenvalues > 1 (λ1=2.94, λ2=2.56, λ3=0.53). The two-dimensional solution was confirmed by parallel analyses, using normally distributed random data and permutations of the raw data (O'Connor, 2000) as well as Velicer's minimum average partial (MAP) test. Thus, we retained two factors, accounting for a total of 70.8% of the variance. Because the oblique rotation resulted in a factor correlation of only .03, we report the results of the orthogonal varimax rotation. The rotated loadings (see Table 1) revealed a clean and readily interpretable factor structure, as expected. The first component captures cognitive job insecurity, and the second component affects job insecurity. We also conducted a confirmatory factor analysis on the variance-covariance matrix with the maximum likelihood algorithm using LISREL 8.54 (Jöreskog & Sörbom, 1996). The following indices indicated an acceptable fit: χ²(13)=26.322, p<.05, a goodness-of-fit index of GFI =.948, a non-normed fit index of NNFI=.958, a comparative fit index of CFI =.974, and a root mean square error of approximation index of RMSEA=0.086 (the only fit index that is slightly above typical recommendations). Even though both latent factors were allowed to correlate, they did so only at .03 (n.s.). As can be seen from the last column of Table 1, the standardized loadings of this solution were all greater than .67 and statistically significant (p < .01). Thus, both explorative and confirmatory factor analyses show the independence of cognitive and affective job insecurity.

Insert Table 1 about here

3.2 Comparison of correlations

The correlations of cognitive and affective job insecurity with job attitudes and performance criteria (as well as the descriptive statistics and reliabilities for all variables) are reported in Table 2. This table answers our open research question with the clear result that the correlational pattern of cognitive job insecurity is different from the pattern of affective job insecurity: Cognitive and affective job insecurity have different relationships with outcome variables. Whenever there is a statistical significant relationship between job insecurity and the external variables, the signs of both correlations are different for the cognitive and the affective scale.

Insert Table 2 about here

4. Discussion

This study uncovered two clear findings. First, Borg’s (1992; Borg & Elizur, 1992) scales for affective and cognitive job insecurity can be clearly separated. Second, affective and cognitive job insecurity had distinct correlational patterns with other variables such as job satisfaction and self-reported OCB. The finding that Borg’s (1992; Borg & Elizur, 1992) affective and cognitive job insecurity scales have distinct correlational patterns with work attitudes and work behaviors stresses the idea that Borg’s (1992; Borg & Elizur, 1992) affective job insecurity scale might actually not be a measure of the construct affective job insecurity (i.e., being afraid of losing one’s job) but rather a measure of the emotional reaction to imagining losing one’s job. This can be due to the way the items are constructed because they always start with “The thought of losing my job…”. This would mean that subjects who fill out the questionnaire in fact imagine that they lose their job and their responses reflect the emotional reaction to this - maybe purely hypothetical - situation. Consequently, Borg’s (1992; Borg & Elizur, 1992) affective job insecurity scale might rather measure affinity to the job.

This interpretation can also explain why we found that cognitive and affective job insecurity are two different and unrelated dimensions of job insecurity. If Borg’s (1992; Borg & Elizur, 1992) affective job insecurity scale measures the affective reaction to imagined job loss, there is no need to assume that this is related to the perception of job insecurity. Whether losing my job is likely or not: I can always imagine that I would lose it and this might trigger fear reactions (or not). These results let us caution other researchers about the use of the Borg’s (1992; Borg & Elizur, 1992) affective job insecurity scale. It might not measure what its title promises. Thus, if researchers are interested in measuring affective job insecurity, they may be well advised to develop a purer measure of affective job insecurity.
If they do so, they should create positively and negatively phrased items in order to prevent the additional problem of Borg’s scales that the affective job insecurity subscale contains only positively phrased items and the cognitive job insecurity job insecurity subscale only negatively phrased items. Alternatively, they could also search the literature for other job insecurity measures that have items capturing affective job insecurity, like the measure of De Witte (2000; cited after Bosman, Buitendach, & Rothmann, 2005). It should be noted, however, that Bosman et al. (2005) suggested further refinement of this scale because they could not replicate its factor structure of the De Witte measure in a South African sample. Our results, however, also show that the four item scale for cognitive job insecurity might be useful tool for future research. In particular, it had a Cronbach’s alpha of .87 despite its brevity. Given that the length of the questionnaire is very often an important issue in applied field research, and given the length of other job insecurity measures (e.g., Ashford, Lee, & Bobko, 1989), it might be a good alternative to use this scale.

At least one limitation concerning this study should be mentioned: The generalizability might be limited by the participants under study, who came just from one German organization that was not in a crisis. However, given that the correlational pattern of cognitive job insecurity is similar to findings in other populations (cf. Cheng & Chan, 2008), and given the fact that the independence of the affective and cognitive job insecurity subscales was also found by Borg and Elizurs (1992), there should be at least some generalizability.

More generally, these results show how important it is to carefully examine item content. Sometimes, it is just too easy to relay on scale labels (e.g., “affective job insecurity”) without studying the items, although a close inspection would have shown that the label may not be that appropriate. However, if we do not know what we exactly measure, interpreting research becomes difficult.

**Author Note**

We thank Michael Graupmann and Ute Weskott for their help with the data collection. Some parts of this data were also used for Staufenbiel & König (2010, Journal of Organizational and Occupational Psychology).

**References**


**Table 1:** Descriptive Statistics, Varimax Rotated Factor Loadings and communalities ($h^2$) of the Principal Axis Factoring (PAF) and Loadings of the Maximum Likelihood Structural Equation Model (SEM) for the Job Insecurity Items (N=138)

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Factor I</th>
<th>Factor II</th>
<th>$h^2$</th>
<th>PAF Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>My workplace is secure in every respect.</td>
<td>4.14</td>
<td>1.57</td>
<td>.856</td>
<td>.057</td>
<td>.736</td>
<td>.886</td>
</tr>
<tr>
<td>In my opinion, I will keep my job in the near future.</td>
<td>2.96</td>
<td>1.20</td>
<td>.718</td>
<td>.088</td>
<td>.523</td>
<td>.681</td>
</tr>
<tr>
<td>My job is secure.</td>
<td>3.85</td>
<td>1.46</td>
<td>.909</td>
<td>.005</td>
<td>.826</td>
<td>.933</td>
</tr>
<tr>
<td>In my opinion, I will be employed for a long time in my present workplace.</td>
<td>3.15</td>
<td>1.41</td>
<td>.722</td>
<td>-.096</td>
<td>.530</td>
<td>.676</td>
</tr>
<tr>
<td>The thought of losing my job troubles me.</td>
<td>4.64</td>
<td>1.83</td>
<td>.027</td>
<td>.837</td>
<td>.701</td>
<td>.835</td>
</tr>
<tr>
<td>The thought of losing my job worries me.</td>
<td>4.17</td>
<td>1.82</td>
<td>.027</td>
<td>.859</td>
<td>.738</td>
<td>.854</td>
</tr>
<tr>
<td>The thought of losing my job scares me.</td>
<td>4.33</td>
<td>1.81</td>
<td>-.016</td>
<td>.949</td>
<td>.902</td>
<td>.956</td>
</tr>
</tbody>
</table>

Explained Variance: 37.09% 33.70%

Note. Factor I = cognitive job insecurity; Factor II = affective job insecurity.
<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cognitive job insecurity</td>
<td>3.51</td>
<td>1.20</td>
<td>.87</td>
<td>[.83,</td>
<td>.90]</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Affective job insecurity</td>
<td>4.38</td>
<td>1.68</td>
<td>.020</td>
<td>.91</td>
<td>[.88,</td>
<td>.93]</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Job satisfaction</td>
<td>4.91</td>
<td>1.02</td>
<td>-.500**</td>
<td>.241**</td>
<td>.92</td>
<td>[.90,</td>
<td>.94]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Commitment</td>
<td>4.81</td>
<td>1.10</td>
<td>-.330*</td>
<td>.173*</td>
<td>.733*</td>
<td>.78</td>
<td>[.72,</td>
<td>.83]</td>
<td></td>
<td></td>
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<tr>
<td>5. Procedural justice</td>
<td>4.41</td>
<td>1.15</td>
<td>-.417**</td>
<td>.214*</td>
<td>.686*</td>
<td>.482*</td>
<td>.86</td>
<td>[.82,</td>
<td>.89]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Interactional justice</td>
<td>5.34</td>
<td>1.21</td>
<td>-.381**</td>
<td>.201*</td>
<td>.653*</td>
<td>.533*</td>
<td>.611*</td>
<td>.94</td>
<td>[.92,</td>
<td>.95]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Turnover intention</td>
<td>2.18</td>
<td>1.49</td>
<td>.266**</td>
<td>-.192*</td>
<td>-.764*</td>
<td>.622*</td>
<td>.613*</td>
<td>.540*</td>
<td>[.89]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. OCB (self)</td>
<td>5.61</td>
<td>0.63</td>
<td>-.243**</td>
<td>.221**</td>
<td>.627*</td>
<td>.539*</td>
<td>.427*</td>
<td>.488*</td>
<td>-.86</td>
<td>[.82,</td>
<td>.89]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. OCB (supervisor)</td>
<td>5.25</td>
<td>0.89</td>
<td>.058</td>
<td>-.053</td>
<td>.217*</td>
<td>.146</td>
<td>.173*</td>
<td>.223*</td>
<td>-.142</td>
<td>.92</td>
<td>[.90,</td>
<td>.94]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. In-role behavior (self)</td>
<td>6.27</td>
<td>0.60</td>
<td>-.198*</td>
<td>.126</td>
<td>.277*</td>
<td>.281*</td>
<td>.223*</td>
<td>.244*</td>
<td>-.568*</td>
<td>.038</td>
<td>[.68,</td>
<td>.81]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. In-role behavior (supervisor)</td>
<td>5.89</td>
<td>0.74</td>
<td>-.001</td>
<td>.031</td>
<td>.184*</td>
<td>.170*</td>
<td>.143</td>
<td>.210*</td>
<td>-.133</td>
<td>.097</td>
<td>.785*</td>
<td>.009</td>
<td>.87</td>
<td>[.83,</td>
</tr>
<tr>
<td>12. Absenteeism</td>
<td>2.21</td>
<td>1.97</td>
<td>.054</td>
<td>.023</td>
<td>-.296*</td>
<td>.224*</td>
<td>.176*</td>
<td>.170*</td>
<td>.348*</td>
<td>-.251*</td>
<td>-.169*</td>
<td>-.169*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $N = 143$ with the exception of the absenteeism measure, where $N = 136$. Cronbach’s alphas appear in italics along the diagonal (95% confidence intervals computed using “ScoreRel CI” [Barnette, 2005] in brackets). OCB = organizational citizenship behavior. * confidence interval cannot be computed because number of items must be larger than 2.

*p < .05. **p < .01.