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Job insecurity : cross-cultural comparison between Germany and China

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Job insecurity: Cross-cultural comparison between Germany and China

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Review

Job insecurity: Cross-cultural comparison between Germany and China

One lingering effect of the 2008 financial crisis is increased job insecurity among workers (Van Gyes and Szekér, 2013). Job insecurity has been associated with various negative outcomes both for employees and organisations (e.g., De Witte, 1999), including increased burnout (De Witte, 2000), reduced work engagement (Bosman *et al.*, 2005), reduced work health and wellbeing among employees (Dongdong *et al.*, 2008; Siu, 2013), increased turnover intention (Probst, 2008), reduced job performance (Wang *et al.*, 2014), specifically with regards to organisational citizenship behaviour (Reisel *et al.*, 2010), and decreased safety motivation and compliance (Probst and Brubaker, 2001).

The perception of job insecurity tends to be more negative in collectivistic than individualistic cultures (Probst and Lawler, 2006). Researchers argue that collectivistic cultures place higher emphasis on the value of security than individualistic cultures. Yet the research was conducted before the recent economic crisis broke out in 2008. This crisis affected and continues to affect Western individualistic countries more than Eastern collectivistic cultures (Garrett, 2010). Thus, the question arises whether the change in the global economic environment may have caused a shift in the negative influence of job insecurity from mostly affecting Eastern to Western countries. The present study aims to clarify this question by comparing the influence of job insecurity in samples from China (i.e., an Eastern culture) to Germany (i.e., a Western culture). Being able to understand the nature and influences of job insecurity in those two national contexts is necessary for organisations to thrive and be effective.

Employee job performance comprises the major contribution of individuals to the effectiveness of the organisation (Schat & Frone, 2011). Two important aspects of job performance are innovative work behaviour (IWB) and attention-related cognitive errors (ARCES). On the one hand, employees' IWB can create novel and useful products, ideas and procedures (De Spiegelare *et al.*, 2014). By enhancing employees' creative performance

Job insecurity in Germany vs. China

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3 organisations can achieve competitive advantages (Shalley, 1995). On the other hand,
4
5 employees' ARCES can influence their own as well as other people's safety and are highly
6
7 related to economic losses. It is estimated that workplace injuries, illnesses and fatalities result
8
9 in economic damages amounting 4-5% of the total global gross domestic product (World
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11 Health Organisation, 2008). Therefore, IWB and ARCES are highly relevant to employees'
12
13 job performance and an organisation's economic success.
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17 Though innovation literature largely ignores job insecurity, a recent study found a
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19 direct relationship between job insecurity and IWB, as well as a mediation of this relationship
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21 by work engagement, in a Flemish sample (De Spiegelaere *et al.*, 2014). The present study
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23 takes these findings one step further by examining these relationships in the two different
24
25 national contexts of Germany and China. In addition, the present study investigates job
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27 insecurity's direct influence on ARCES, as well as a mediation of this relationship by
28
29 burnout. Research suggests a relationship between slip errors at the workplace and high levels
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31 of stress and burnout (Donchin and Seagull, 2002). Individuals suffering from burnout self
32
33 report making significantly more errors at their workplace than their colleagues not suffering
34
35 from burnout, which has significant implications for their safety at the workplace (e.g.,
36
37 Nahrgang *et al.*, 2011). Therefore, we also investigate burnout as a potential mediator of the
38
39 relationship between job insecurity and ARCES in the current study.
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44 In sum, we investigate and expect that job insecurity has both a direct negative
45
46 influence on IWB and an indirect influence through its' negative influence on work
47
48 engagement. Furthermore, we assume both a direct negative influence on ARCES as well as
49
50 an indirect effect through its' positive influence on burnout.
51

52 **Job insecurity**

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54 Job insecurity can be defined as "perceived powerlessness to maintain the desired
55
56 continuity in a threatened job situation" (Greenhalgh and Rosenblatt, 1984, p.438). Extensive
57
58 research has documented the negative consequences of job insecurity on employees' well-
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Job insecurity in Germany vs. China

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3 being and health (for an overview, see De Witte, 1999). The perception of job insecurity is
4 subjective — the same objective situation can be interpreted differently by various employees
5 (De Witte *et al.*, 2012). However, research across different European countries suggests that
6 job insecurity as perceived by the employee reflects the national economic situation (De
7 Weerd *et al.*, 2004). Regarding the recent economic crisis, research found that after the
8 recession the saliency of job insecurity remains higher (Auerbach and Gale, 2009).
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16 Additionally, studies suggest that perceived job insecurity reflects an employee's
17 objective chances of becoming unemployed (Näswall & De Witte, 2003). Low-skilled
18 workers, those with a temporary employment contract or employees in certain sectors facing a
19 higher probability of being dismissed perceive higher job insecurity, hence reflecting their
20 objective situation.
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27 Furthermore, two types of job insecurity are recognized: *quantitative* and *qualitative*
28 (De Witte *et al.*, 2012). *Quantitative* job insecurity refers to whether employees feel they will
29 be able to keep their jobs or might become unemployed. *Qualitative* job insecurity is
30 concerned with being insecure about valued job characteristics like wage, location of
31 employment or working hours.
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38 **Attention-related cognitive error**

39
40 Lapses of attention are inescapable and part of everyday life (Cheyne *et al.*, 2006).
41 Some human errors are merely inconvenient, such as missing a familiar turn-off when driving,
42 while others can have serious consequences like accidents, injuries or even loss of life
43 (Robertson, 2003). Thus, lapses of attention are highly related to personal as well as
44 organisational safety. Work overload, stress and burnout significantly contribute to the
45 occurrence of human errors (Conte and Jacobs, 1997).
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54 Perhaps the most relevant work on attention failures in everyday life has been
55 conducted by Reason (1977, 1979). By using diary studies, Reason had participants record
56 daily action slips. He later used these records to develop a classification scheme for failures in
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Job insecurity in Germany vs. China

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3 everyday lives. Reason differentiates between two error types, namely slips and mistakes.
4
5 People make mistakes when they have incorrect or absent knowledge of the task they are
6
7 performing, like a doctor incorrectly diagnosing a patient because of incorrect medical
8
9 knowledge or lack of experience. In contrast, people show slips when they have the correct
10
11 knowledge about a task, but take the wrong action in completing it. For example, you know
12
13 how to make a cup of coffee, but you reach for salt rather than sugar and add it to your coffee.
14
15 Avoiding slip errors is more difficult, because they can even happen to people who are very
16
17 skilled at their task. Slips even prevail in expert performance. In the present paper we focus
18
19 on slip errors for tasks that are obvious and have adequate rules known to the individual.
20
21 Following the research by Cheyne *et al.* (2006), we refer to these slip errors as *attention-*
22
23 *related cognitive errors* in the following. Those ARCES of tasks well known to the individual
24
25 pose a particular risk to organisational safety with all its potentially harmful and costly
26
27 consequences. Thus, it is highly important to examine factors contributing to lapses of
28
29 attention.
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34 Job insecurity has been identified as a potential risk to employee safety outcomes
35
36 (Probst and Brubaker, 2001). Employees reporting high perceptions of job insecurity show
37
38 decreased safety motivation and safety compliance. This may be due to less cognitive
39
40 resources being available when employees are preoccupied with the future of their jobs. Stress
41
42 resulting from job insecurity could take away resources to focus one's attention on the job
43
44 task and comply with imposed safety regulations (e.g., Probst and Brubaker, 2001). Therefore,
45
46 we hypothesize that:
47
48

49 *H1: Job insecurity will be positively related to attention-related cognitive errors.*

50 51 52 **Innovative work behaviour**

53 Building on West and Farr (1990), De Spiegelaere et al. (2014, p.319) define
54
55 innovative work behaviour as "all employee behaviour directed at the generation, introduction
56
57 and/or application (within a role, group or organisation) of ideas, processes, products or
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1
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3 procedures, new to the relevant unit of adoption that supposedly significantly benefit the
4
5 relevant unit of adoption.” Employees showing IWB find, suggest and implement new ideas
6
7 at the workplace that are beneficial for the organisation. Though IWB is conceived as a multi-
8
9 dimensional concept (Kanter, 1988), most of the literature distinguishes between two sub-
10
11 dimensions: idea generation and idea implementation (Yuan and Woodman, 2010). Those two
12
13 phases are not sequential, since innovation is a discontinuous process (Kanter, 1988). In the
14
15 phase of idea generation employees identify problems and generate innovative solutions to
16
17 those problems. The implementation phase refers to the proposal, defence and actual
18
19 implementation of the employees’ innovative solution.
20
21

22
23 IWB is closely related to creativity and yet differs from the concept of creativity in
24
25 two major aspects (De Spiegelaere *et al.*, 2014). First, IWB is a multi-dimensional construct
26
27 while creativity focuses exclusively on idea generation. Second, creativity refers to the
28
29 creation of something completely new. In contrast, IWB refers to something new “for the
30
31 relevant unit of adoption” (De Spiegelaere, 2014, p. 319). Employees who copy external ideas
32
33 to implement internally in their department or organisation demonstrate IWB, while according
34
35 to definition they do not show creativity. The focus of the present study is on idea generation,
36
37 since we are mostly concerned with employees’ generation of novel solution to problems,
38
39 even if it might not be possible to implement them due to various external factors.
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42
43 Few studies focus on IWB and job insecurity. Particularly relevant for the present
44
45 paper is a recent work carried out by De Spiegelaere et al. (2014). The researchers conducted
46
47 a survey study with a Flemish sample. While they operationalised IWB in the same way as the
48
49 present study, job insecurity was only measured as a single item, asking participants to
50
51 evaluate their chances of becoming unemployed for four weeks in the following 12 months.
52
53 The current study includes a validated scale to measure job insecurity (De Witte, 2000).
54
55 Moreover, we include both quantitative and qualitative job insecurity. De Spiegelaere et al.
56
57 (2014) found a direct and indirect relationship through work engagement between job
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1 Job insecurity in Germany vs. China

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3 insecurity and IWB. Consequently, we expect to find the same link and verify their results in
4
5 the contexts of Germany and China:

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7 *H2: Job insecurity will be negatively related to innovative work behaviour.*

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9 **Mediation by burnout and work engagement**

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11 Research on IWB and creativity frequently identified work engagement as an
12
13 antecedent (Shalley *et al.*, 2004). Furthermore, job-insecure individuals show reduced work
14
15 engagement (e.g., De Witte, 1999, 2000). Work engagement is defined as “a positive fulfilling
16
17 work related state of mind that is characterized by vigour, dedication and absorption”
18
19 (Schaufeli *et al.*, 2002, p. 74). Vigour refers to high levels of mental resilience and energy at
20
21 work, and the willingness to invest effort and persistence even when facing difficulties.
22
23 Dedication is characterized by a sense of enthusiasm, inspiration, significance, challenge and
24
25 pride. Absorption refers to being deeply engrossed in and fully concentrating on one’s work.
26
27 In a state of absorption time passes quickly and it is difficult to detach oneself from work. In
28
29 short, engaged employees have high levels of energy, are enthusiastic about their work and
30
31 often fully immersed in it so that time flies (May *et al.*, 2004). As previous research showed,
32
33 work engagement is an important mediator in the relationship between job insecurity and
34
35 IWB (De Spiegelaere *et al.*, 2014). The goal of the present study is to test these results in
36
37 different cultural contexts and therefore we include the following hypothesis:
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42
43 *H3: Work engagement will mediate the relationship between job insecurity and*
44
45 *innovative work behaviour.*

46
47 Research suggests that work engagement and burnout are opposite poles of the same
48
49 dimension (Gonzalez-Roma *et al.*, 2006). *Burnout* is a term coined in the early 1970s by the
50
51 psychologist and psychoanalyst Herbert J. Freudenberger (1975). In the 1990s the term was
52
53 given measurable attributes by Maslach *et al.* (2001). In line with Maslach *et al.* (2001), De
54
55 Oliveira *et al.* (2011, p.177) define burnout as a “work-related psychological syndrome
56
57 characterized by emotional exhaustion, low personal accomplishment, and depersonalization.”
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Job insecurity in Germany vs. China

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3 Burnout is a negative emotional response resulting from prolonged exposure to a stressful
4 work environment characterized by cynicism (i.e., a negative and cynical attitude towards
5 one's job), emotional exhaustion (i.e., the draining of emotional resources) and lack of
6 professional efficacy (i.e., belief in one's ability to correctly fulfil the own professional role;
7 Maslach & Jackson, 1984). Emotional exhaustion and cynicism are considered the core
8 burnout dimensions (Green *et al.*, 1991). Reduced efficacy was added as a constituting
9 element of burnout after it emerged as a third factor from a factor-analysis of a preliminary
10 version of the Maslach Burnout Inventory (MBI; Maslach, 1993). In contrast, vigour and
11 dedication are considered the core dimensions of work engagement (Gonzalez-Roma *et al.*,
12 2006). Vigour is conceived as the opposite of emotional exhaustion, and dedication is
13 conceived as the opposite of cynicism (Schaufeli *et al.*, 2002). Consequently, vigour items
14 and emotional exhaustion items should measure a single underlying bipolar dimension. The
15 same applies to dedication and cynicism. Both should be scalable on a single underlying
16 bipolar dimension as well (Schaufeli *et al.*, 2002).
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34 Job insecurity has previously been linked to increased levels of burnout (De Witte,
35 1999). Further, burnout was found to be negatively related to working safely (Nahrgang *et*
36 *al.*, 2011). Consequently, people with higher levels of burnout reported more accidents and
37 injuries. Individuals suffering from burnout have depleted mental and physical energy. Hence,
38 employees suffering from burnout are more prone to injuries and errors. In the medical sector
39 surgeons' degree of burnout was strongly related to major medical errors (Shanafelt *et al.*,
40 2009). Therefore, we expect that the same will apply to ARCES and that burnout will mediate
41 the relationship between job insecurity and ARCES:
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51 *H4: Burnout will mediate the relationship between job insecurity and attention-related*
52 *cognitive errors.*
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56 **The present study**
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3 The aim of the current research is to examine the mediated relationships between job
4 insecurity and error detection as well as innovative work behaviour in the two cultural
5 contexts of Germany and China. Following a call from Ahlstrom (2012), who pointed out the
6 absence of research conducted in non-Western contexts, the present study contributes to fill
7 this research gap by including a sample from mainland China.
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14 The existing literature on cross-cultural comparisons has been limited due to a focus
15 on individual differences rather than country-level differences as well as their reliance on
16 undergraduate student samples (Oyserman *et al.*, 2002). The present study addresses these
17 issues by examining culture at a national level and by avoiding undergraduate samples.
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23 As noted by Probst and Lawler (2006), in order to truly conduct a cross-cultural
24 comparison, it is important to operationalise culture at the national level. In the present
25 research, we assessed perceived qualitative and quantitative job insecurity, work engagement,
26 burnout, innovative work behaviour and attention-related cognitive errors in Germany and
27 mainland China. Germany as a Western country is a representative of individualistic culture,
28 while China as an Eastern country represents a collectivistic culture (Hofstede, 1980).
29
30 According to Triandis (1995), the way information is processed is influenced by culture,
31 because culture determines what things are noticed, how they are labelled by language and
32 how they are being interpreted. Moreover, culture provides guiding principles for individuals
33 on how to live their life.
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45 The probably best studied dimension of cultural values is collectivism versus
46 individualism (Hofstede, 1980). Collectivists are defined as an ingroup united by common
47 fate (Triandis *et al.*, 1990). A central aspect of collectivism is “the assumption that groups
48 bind and mutually obligate individuals” (Oyserman *et al.*, 2002, p. 5). In contrast, in
49 individualism individual goals rank higher than ingroup goals (Triandis *et al.*, 1990).
50
51 Individualists regulate their behaviour based on personal preferences and a cost-benefit
52 analysis. Ingroup confrontation is socially acceptable.
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3 Research as early as Hofstede (1980) showed that collectivistic cultures emphasize job
4 security more than individualistic cultures. Meindl *et al.* (1989) compared the collectivistic
5 cultures of China, Hong Kong and Taiwan to the individualistic culture of the U.S. and
6 reached the same conclusion. Employees from collectivistic cultures valued job security more
7 than their individualistic counterparts. The seminal work by Schwartz (1990) identified
8 security, conformity and tradition as the core values of collectivism. In a study conducted by
9 Probst and Lawler (2006), employees from China (i.e., collectivist) reacted more negatively to
10 job insecurity than employees from the U.S. (i.e., individualist) on dimensions like job
11 satisfaction, turnover intentions and work withdrawal behaviours.
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23 However, those studies were conducted prior to the most recent major economic crisis.
24 Experiencing the financial crisis has increased perceptions of job insecurity among European
25 workers (Siu, 2013; Van Gyes & Szekér, 2013). Although Germany's economy is doing
26 better than the economy in other European countries and unemployment rates were contained
27 due to various reactionary policies, the impact of the crisis was comparable to the rest of
28 Europe as measured by the GDP growth rate for 2009 (Chung and Thewissen, 2011). Despite
29 the financial crisis in the U.S. and Europe, China is still the biggest and fastest-growing
30 economy in the world (Garrett, 2010). Thus, the question that arises is whether China as a
31 collectivistic culture is still experiencing greater impact of job insecurity as compared to
32 Germany as an individualistic culture, even though Europe is still struggling financially. The
33 present study aims to resolve this question.
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47 *H5: Germany and China will differ in the strength of the effect of job insecurity on*
48 *work engagement, burnout, innovative work behaviour and attention-related cognitive*
49 *errors, as well as their mediated relationships.*
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54 In sum, our hypotheses predict multiple direct and indirect relations between job
55 insecurity, work engagement, burnout, IWB and attention-related cognitive errors.
56 Specifically, we hypothesize that there is both a direct relationship between job insecurity and
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3 ARCES (Hypothesis 1) and an indirect relationship through an effect on burnout (Hypothesis
4
5 4). Likewise, we hypothesize that job insecurity has a direct effect on IWB (Hypothesis 2) and
6
7 a negative indirect effect through work engagement (Hypothesis 3). Figure 1 depicts the
8
9 predicted full model.
10

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13 Insert Figure 1 here
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17 18 **Method**

19 20 *Participants and Procedure*

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22 We sampled employees from multiple companies to represent as wide a variety of
23
24 sectors and organisations as possible to enhance generalisability. Participants were recruited
25
26 via personal connections of the experimenters. In total, we collected data from 205 employees
27
28 from China and 374 employees from Germany ($N=579$).
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30

31
32 We used both online questionnaire survey and self-administered questionnaire survey
33
34 method for data collection in Germany and exclusively self-administered questionnaire survey
35
36 method for China. The German online questionnaire was programmed in the Google docs
37
38 option for survey creations. The instructions informed employees that their participation was
39
40 voluntary and they were ensured of confidentiality and anonymity of their responses. The
41
42 items in the questionnaire, the instructions and the introduction were double-translated
43
44 following the procedures outlined by Brislin (1980) for use with the German and Chinese
45
46 sample.
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50 The German sample was 65.1 percent female with a mean age of 39 years (standard
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52 deviation = 12.3), and mean job tenure of 9.1 years (standard deviation = 9.1 years). The
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54 majority (62.4 percent) was married, cohabitating or living with family/parents, had above
55
56 lowest formal qualification (43.9 percent). Regarding their employment status, most of the
57
58 participants had a permanent working contract (76.8 percent) and worked full-time (63.5
59
60

percent). On average, they worked 34.6 hours per week (standard deviation = 10.7 hours/week). The Chinese sample was 37.9 percent female with a mean age of 36 years (standard deviation = 9.8 years), and mean job tenure of 8.0 years (standard deviation = 8.4 years). Overall, 75.2 percent of them were married, cohabitating or living with family or parents and the vast majority reported an education level of higher secondary qualification (91.3 percent). More than half (54.1 percent) had a permanent employment contract and worked full-time (95.5 percent) with an average of 43.3 working hours per week (standard deviation = 7.2 percent). Participants from both samples worked in a variety of industries, the most common being general service industry, retail/sales service, social/health services and the educational sector.

Measures

Participants were asked to rate each item on a 6-point Likert scale ranging from 0 (Never) to 6 (Always), except for the scales measuring quantitative and qualitative job insecurity and employability. For those three scales items were rated on a 6-point Likert scale, ranging from 1 (Strongly disagree) to 6 (Strongly agree). As can be seen from Table 1, the internal reliabilities of the scales in both the German and Chinese samples were high.

Quantitative Job Insecurity was measured with the Job Insecurity Scale (JIS) developed by De Witte (2000). The scale consists of four items, e.g. "Chances are, I will soon lose my job."

Qualitative Job Insecurity was measured with four items by De Witte (2000). A sample item is, "I think my job will change for the worse."

Work Engagement was measured with the nine item version of the Utrecht Work Engagement Scale (UWES-9) developed by Schaufeli et al. (2006). This scale measures the three sub-dimensions of work engagement with three items per dimension: vigour (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "My job inspires

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me”) and absorption (e.g., “I get carried away when I am working”). The Chinese version was published in Siu et al. (2010).

Burnout was measured with the Maslach Burnout Inventory-General Survey (Schaufeli *et al.*, 1996). The scale includes exhaustion (five items), cynicism (five items) and professional efficacy (six items). Burnout is indicated by high scores on exhaustion and cynicism and low scores on professional efficacy. Items include whether the individual feels emotionally drained from work (exhaustion), feels able to effectively solve problems that arise from work (professional efficacy, reverse coded) and doubts the significance of the work (cynicism).

Attention-related cognitive errors were measured with 12 items by Cheyne, Carriere and Smilek (2006), e.g. “I have absent-mindedly placed things in unintended locations (e.g., putting milk in the pantry or sugar in the fridge.)”

Innovative work behaviour was measured with four items related to idea generation developed by De Jong and Den Hartog (2010). Sample items include, “How often do you wonder how things can be improved” or “How often do you generate original solutions for problems?”

Demographic information and control variables. Single questions asked participants to indicate their age, gender (1 = *male*, 2 = *female*), relationship status/living situation (1 = *married/cohabitating/living with family or parents*, 2 = *not married*), education level (1 = *no formal qualification*, 2 = *lowest formal qualification*, 3 = *above lowest formal qualification*, 4 = *higher secondary qualification*, 5 = *University degree*), tenure on the job, contract type (1 = *permanent*, 2 = *non-permanent*), employment type (1 = *full-time*, 2 = *part-time*), and average working hours per week. Research suggests that employability, i.e. employees’ perception of how easy they could find a new job, is a form of job security (Berntson *et al.*, 2006).

Therefore, we investigate employability as an additional variable in the present paper.

Employability was measured with four items (De Witte, 2000), e.g. “I will easily find another

1
2
3 job if I lose this one". Additionally, we measured employees' perceived social safety net
4
5 ("Please rate your social safety net in case of unemployment") and their perceived level of
6
7 dismissal protection with one item, respectively. Participants were asked to rate the items on a
8
9 Likert scale ranging from 1 (Very bad) to 6 (Very good).
10

11 *Analytical strategy*

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13 Data have been checked for outliers defined as deviating 3 standard deviations from
14
15 the mean. No outliers have been identified according to this definition and thus no data points
16
17 have been removed. We performed multigroup confirmatory factor analyses in AMOS 22
18
19 (Arbuckle, 2013) to examine the measurement equivalence of scales to test whether
20
21 participants in Germany and China interpreted the scale items similarly. Since structural
22
23 equation modelling (SEM) cannot be conducted with missing data in AMOS, we deleted
24
25 cases with missing data listwise. We used maximum likelihood estimation to evaluate model
26
27 fits. Results provided support for the measurement invariances across scales.
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31 Data analysis was divided into two steps. In the first step we tested for direct and
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33 indirect effects hypothesized in *H1* through *H4*. We performed bootstrapping in SPSS 21
34
35 using the PROCESS macro (model 4 = mediation) developed by Hayes (2012). In the second
36
37 step we performed multivariate analyses to explore mean differences between countries.
38
39 Multivariate normality was not given, but in many cases, like data being collected on a normal
40
41 scale, it has been argued that multivariate normality may not be a viable or appropriate
42
43 assumption (Khattree and Naik, 2000). We then examined whether the predicted paths in our
44
45 theoretical model (see Figure 1) were equal in both nations (structural invariance). In addition,
46
47 we performed supplementary analyses to address potential alternative explanations for our
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49 findings.
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53 **Results**

54 *Within-cultural analysis*

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Table 1 shows means, standard deviations, scale reliabilities and zero-order product-moment correlations for each of the study variables in the German and Chinese sample. As can be seen from this table, quantitative job insecurity was positively related to burnout in both the German ($r = .48, p < .01$) and the Chinese sample ($r = .43, p < .01$). Similarly, qualitative job insecurity was positively correlated with burnout in both the German ($r = .55, p < .01$) and Chinese sample ($r = .53, p < .01$). Both samples show positive correlations between quantitative job insecurity and ARCES (Germany: $r = .18, p < .01$; China: $r = .32, p < .01$), as well as qualitative job insecurity and ARCES (Germany: $r = .18, p < .01$; China: $r = .40, p < .01$). Regarding work engagement, in the German sample both quantitative ($r = -.35, p < .01$) and qualitative ($r = -.42, p < .01$) job insecurity were negatively related to work engagement. However, in the Chinese sample neither quantitative ($r = -.01, p = n.s.$) nor qualitative job insecurity was correlated with work engagement ($r = -.03, p = n.s.$). Furthermore, quantitative job insecurity was negatively related to IWB in both samples (Germany: $r = -.13, p < .05$; China: $r = -.17, p < .01$), as was qualitative job insecurity (Germany: $r = -.23, p < .01$; China: $r = -.17, p < .05$),

Insert Table 1 here

For the mediation analyses we drew 1000 bootstrapping samples to get bias-corrected and accelerated 95% confidence intervals (BCa CI) for the indirect effect of quantitative and qualitative job insecurity on IWB. In the German sample, quantitative job insecurity had a significant indirect effect on IWB through work engagement, $b = -0.122$, BCa CI [-0.174, -0.078]. This represents a medium to large effect, $\kappa^2 = .161$, 95% BCa CI [.101, .224]. Likewise, qualitative job insecurity had a significant indirect effect on IWB through work engagement, $b = -0.141$, BCa CI [-0.193, -0.096]. This also represents a medium to large effect, $\kappa^2 = .173$, 95% BCa CI [.121, .230]. Furthermore, quantitative job insecurity had a

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3 significant indirect effect on ARCES through burnout $b = -0.010$, BCa CI [.087, .167], which
4 is a medium effect, $\kappa^2 = .187$, 95% BCa CI [.140, .256]. Regarding qualitative job insecurity,
5 there was also a significant indirect effect on ARCES through burnout $b = 0.153$, BCa CI
6 [.117, .199], representing a large effect, $\kappa^2 = .220$, 95% BCa CI [.168, .282]. Thus, in the
7 German sample the relationships between quantitative and qualitative job insecurity and IWB
8 as well as ARCES were fully mediated by work engagement and burnout, respectively.
9 Therefore, results refute our *H1* and *H2* (regarding direct relationships), but confirm our *H3*
10 and *H4* (regarding indirect relationships) in the German sample.
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16 Regarding the Chinese sample, burnout fully mediated the relationship between
17 quantitative job insecurity and ARCES in the Chinese sample, $b = 0.196$, BCa CI [0.135,
18 0.265], representing a large effect, $\kappa^2 = .266$, 95% BCa CI [.191, .352]. In addition, burnout
19 also fully mediated the relationship between qualitative job insecurity and ARCES, $b = 0.262$,
20 BCa CI [0.193, 0.339], being a large effect, $\kappa^2 = .306$, 95% BCa CI [.234, .383]. Thus, our *H1*
21 has been refuted, while *H4* has been confirmed for the Chinese sample.
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27 As expected from the correlations, work engagement did not mediate the relationship
28 between quantitative job insecurity and IWB, $b = -0.002$, BCa CI [-0.036, 0.029], and neither
29 between qualitative job insecurity and IWB, $b = -0.009$, BCa CI [-0.047, 0.025]. However,
30 using AMOS to test the overall model (Figure 2), there was a negative direct relationship
31 between quantitative job insecurity and IWB ($r = -.17, p < .05$), though there was no significant
32 direct relationship between qualitative job insecurity and IWB ($r = -.15, p = n.s.$). Hence, our
33 *H2* (a direct relationship between job insecurity and IWB) has been confirmed for
34 quantitative, but not qualitative job insecurity. Our *H3* regarding an indirect relationship
35 between quantitative and qualitative job insecurity and IWB through work engagement has
36 not been confirmed in the Chinese sample.
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56 *Cross-cultural analysis*
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We conducted a multivariate analysis of variances to assess mean differences between Germany and China. Table 1 reveals several differences between the two countries. The samples show significant mean differences across all variables except work engagement. Chinese participants scored significantly higher on all variables than their German counterparts.

For quantitative job insecurity as independent variable, the difference between the unconstrained model and the structural model with invariant structural weights is $\chi^2 = 54.77$ with the associated p -value of .001. We obtained similar results for qualitative job insecurity with the difference between the unconstrained model and the structural model with invariant structural weights being $\chi^2 = 60.76$ and a p -value of .001. In sum, there was structural invariance between the two models for both quantitative and qualitative job insecurity across nations. These results support our $H5$, showing differences between the German and Chinese samples.

Insert Figure 2 here

Supplementary analysis

In addition to the analyses above we conducted supplementary analyses for a further exploration of our data and to rule out alternative explanations. Since job insecurity is overall higher in China than in Germany (see Table 1), we examined whether there were also significant differences in perceived employability. As suggested by Probst and Lawler (2006), if Chinese employees perceive higher job insecurity and lower chances for re-employment, taken together the effect might be particularly strong and explain the higher scores on all other variables compared to the German sample. As can be seen in Table 1, Chinese employees perceived *higher* levels of employability than German employees, $F(1, 26.26) = 21.20, p$

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3 < .001. Thus, perceived employability does not have the suggested elevated effect on job
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5 insecurity in China.

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7 Since there was a cross-cultural difference of job insecurity between Germany and
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9 China, other important aspects to consider are employees perceived level of dismissal
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11 protection and their perceived social safety net in case of unemployment. Results as displayed
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13 in Table 1 show significant differences between cultures both for the perceived safety net, as
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15 well as for perceived dismissal protection. Germany showed significantly higher means than
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17 China in their level of perceived dismissal protection, $F(1, 12.07) = 6.8, p < .001$. In terms of
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19 social safety net, the collectivist culture China showed significantly higher means, $F(1, 36.24)$
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21 $= 19.16, p < .001$.
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24 25 Discussion

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27 In the German sample, quantitative and qualitative job insecurity had an effect on
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29 ARCES through burnout, without demonstrating a direct relationship. The same results were
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31 found for the Chinese sample, with quantitative and qualitative job insecurity indirectly
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33 influencing ARCES through burnout, but again no direct effect. Results show that job
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35 insecurity influences ARCES in both German and Chinese samples, suggesting that it is a
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37 cross-cultural concern. Since errors at the workplace undermine organisational safety and
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39 might result in accidents, employees might not only harm themselves, but might also
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41 endanger those people around them. Furthermore, errors and accidents can be very costly for
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43 organisations (Whitman, 2014). Therefore, job insecurity should be considered as an
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45 important factor contributing to a greater risk for making errors.
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49 Apart from being more prone to errors, for German employees, quantitative and
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51 qualitative job insecurity also indirectly influenced IWB through work engagement, while
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53 there was no direct relationship. In comparison, for Chinese employees, there was a direct
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55 relationship between quantitative job insecurity and IWB, but no indirect relationship through
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57 work engagement. In addition, qualitative job insecurity neither directly nor indirectly
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Job insecurity in Germany vs. China

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3 influenced IWB in the Chinese sample. Overall, results show that employees generated fewer
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5 innovative ideas when experiencing quantitative job insecurity. These results are partly in line
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7 with previous research conducted by De Spiegelaere et al. (2014). They found both a direct
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9 and indirect relationship between job insecurity and IWB in a Western (Flemish) sample. The
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11 present study found an indirect relationship only for the German sample, but not for the
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13 Chinese sample. Chinese workers did not show a decrease in work engagement due to job
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15 insecurity. Consequently, there was no indirect effect of work engagement on the relationship
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17 between job insecurity and IWB. However, for quantitative job insecurity, there was a direct
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19 effect on IWB. These findings show the importance of cross-cultural research. Results
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21 obtained in one country do not necessarily apply in others.
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25 Previous research in Western countries suggested that employees facing job insecurity
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27 are less engaged in their work because they perceive powerlessness and lack of control
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29 (Vander Elst *et al.*, 2011). Our results from the German employees corroborate those previous
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31 finding. In contrast, Chinese employees showed higher levels of engagement. Perhaps the
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33 threat of job insecurity motivates Chinese employees to work harder to avoid being laid-off
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35 (Heery and Salmon, 2002).
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39 Despite the dramatic changes in the global economy since 2008, Chinese employees
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41 still perceive higher job insecurity than their Western counterparts (Probst and Lawler, 2006).
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43 That was the case for both qualitative and quantitative job insecurity, even though Chinese
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45 employees perceived higher employability. Moreover, Chinese employees showed higher
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47 levels of burnout and were more likely to make attention-related cognitive errors. This
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49 cultural difference might be explained by the different social security systems in Germany and
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51 China. Germany still has an extensive social security system, while China's social security
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53 coverage widely differs between urban and rural areas and even though insurance schemes
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55 exist, e.g., in case of unemployment, many companies do not enroll all of their employees
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57 (Huang, 2011). In fact, our results show that German employees perceive better protection
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3 from work dismissal than their Chinese counterparts. This perception reflects the actual real-
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5 life situation as pointed out by the OECD (2013a, b). Specifically, Chinese employers may
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7 terminate an employment by giving the worker 30 days advanced written notice, regardless of
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9 tenure. In Germany the length of the notice period varies between 2 weeks during a trial
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11 period and up to 7 months for tenure of 20 years or higher. Regarding their perceived social
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13 safety net in case of unemployment, Chinese experience a higher social safety net than
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15 Germans in the present study. This may reflect the cultural difference of collectivism, in
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17 which families tend to have a closer bond (Hofstede, 1980), and thus provide Chinese
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19 employees with the perception of a higher social safety net than their German counterparts,
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21 though objectively social safety imposed by the German government would be higher than the
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23 Chinese governmental safety net. Still, despite perceiving a better social safety net, Chinese
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25 employees experience greater fear of losing their job. A possible explanation could be that
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27 since security is a core value in collectivism (Schwartz, 1990), insecurity over one's job
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29 remains a larger problem in China regardless of the actual economic situation in the world.
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34 **Implications**

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36 Our results indicate that job insecurity undermines organisational safety and
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38 effectiveness. Thus, it is highly important for organisations to consider these factors when
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40 going through mergers, downsizing, acquisitions or other developments that might threaten
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42 their employees' job insecurity. Job insecurity implies unpredictability and uncertainty of the
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44 future for the employee (De Witte, 2005). Therefore, in order to reduce the negative impact of
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46 this uncertainty, organizations can take certain practical steps to reduce the negative
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48 consequences. First, open communication has been shown to reduce the negative impact of
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50 job insecurity, because it increases predictability of events (Schweiger & DeNisi, 1991).
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52 Second, giving employees the opportunity to participate in the decision making process
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54 reduces their feeling of helplessness (Parker *et al.*, 1997). Taking these two steps also
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Job insecurity in Germany vs. China

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3 increases employees' perception of a fair treatment, further enhancing predictability of
4 organisational change processes and expected outcomes (Greenberg and Lind, 2000).
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7 Furthermore, the present study shows the importance of cross-cultural research on job
8 insecurity by demonstrating that findings from Western countries do not necessarily translate
9 to Eastern countries, contributing to theories and development of organizational psychology.
10 Specifically, German employees facing job insecurity are likely to show reduced work
11 engagement and IWB. For Chinese employees, work engagement is less likely to be reduced,
12 while employees still display lower levels of IWB. These findings have practical implications
13 for CEOs and human resource managers, with cross-cultural applications.
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23 **Limitations and future research**

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25 One of the limitations of this study is the cross-sectional data, which does not allow us
26 to establish causal relationships. In addition, we use a single method that might inflate
27 associations between concepts, though literature suggests that single method still provides
28 valuable results (Spector, 2006). Another aspect is common method bias. Following the
29 suggestion by Gardner et al. (1998), we varied response scale formats in an attempt to reduce
30 common method bias. Moreover, we had a between-subjects design. Though we have chosen
31 this design to enhance generalisability, future research might benefit from comparing samples
32 working for the same company in different countries to enhance comparability between
33 samples.
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45 The present study focused on outcomes of job insecurity. Future research might
46 explore antecedents, specifically reasons why China is experiencing higher job insecurity than
47 Western countries (Probst and Lawler, 2006). Moreover, future research should investigate
48 the underlying reasons for the cross-cultural difference of the influence of job insecurity on
49 work engagement.
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56 **Conclusion**

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The consequences of the economic crisis are likely to shape our economic future for a lot more time to come (Auerbach and Gale, 2009). As shown in the present study and previous research (for a comprehensive review see De Witte, 2005), job insecurity has many negative implications for both the employee and the organisation as a whole. When employees make more cognitive errors due to lack of attention related to job insecurity, it can be very dangerous to their own health, other people's safety and it can cause costly accidents for the organization. Likewise, organisations are losing employees' innovative potential, if employees are preoccupied by job insecurity. For organisations to work effectively, it is very important to understand the nature and process of job insecurity in different cultural or national contexts.

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1 Job insecurity in Germany vs. China

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Peer Review

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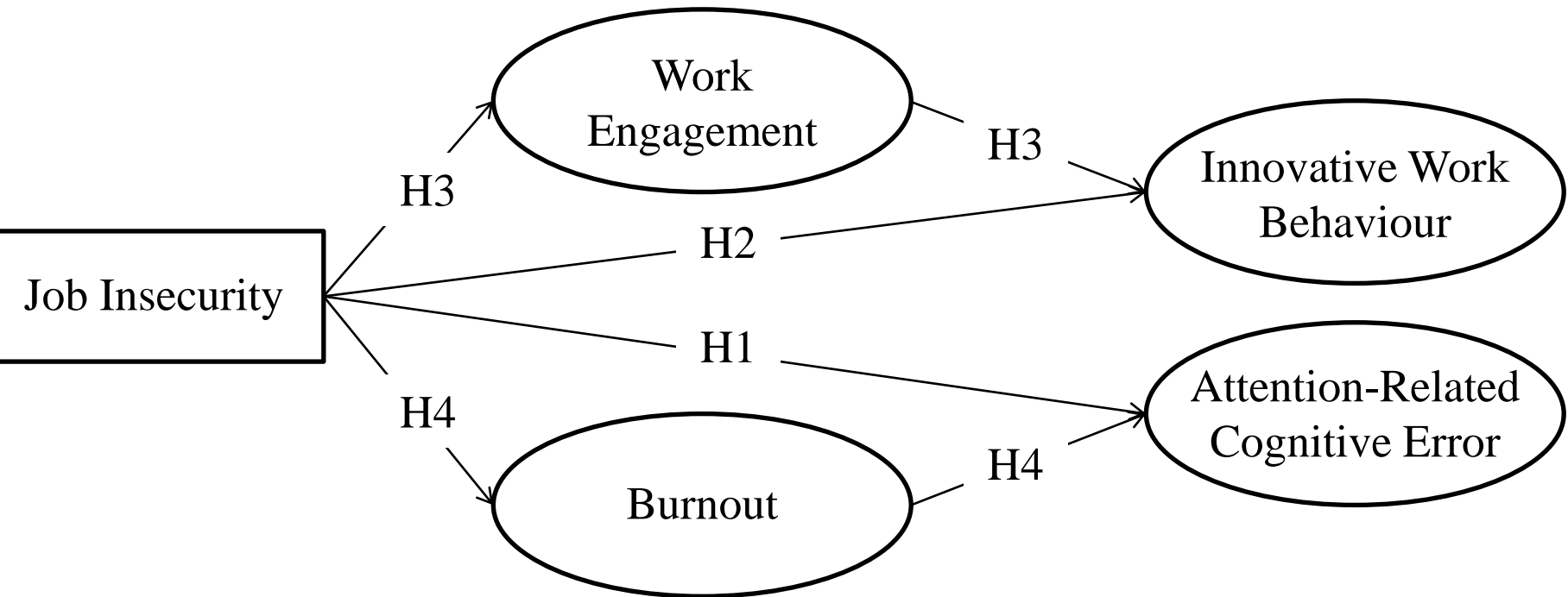
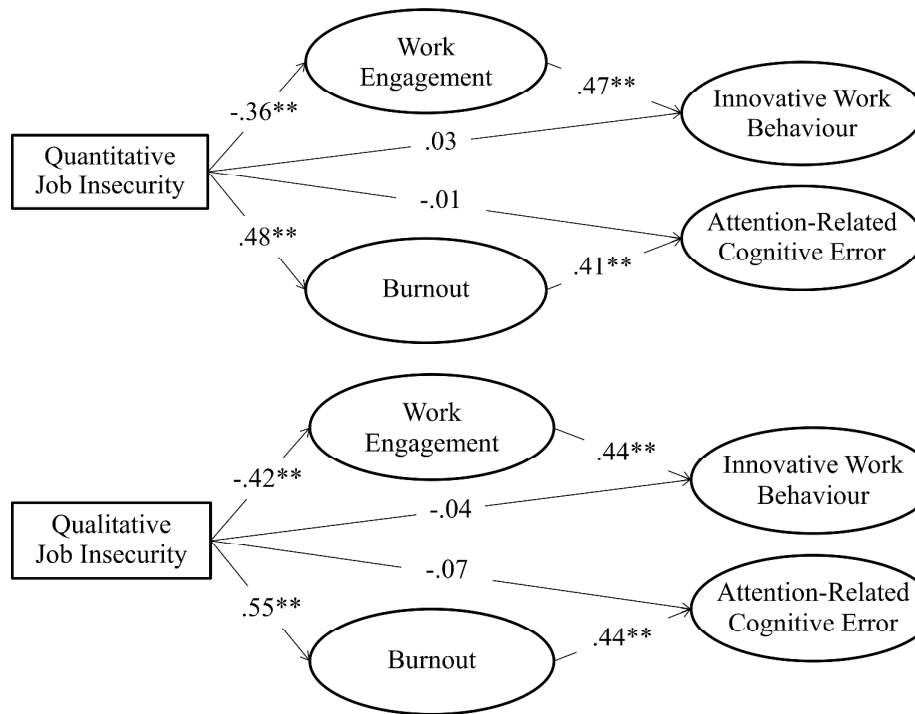


Figure 1. Predicted Model

German Sample



Chinese Sample

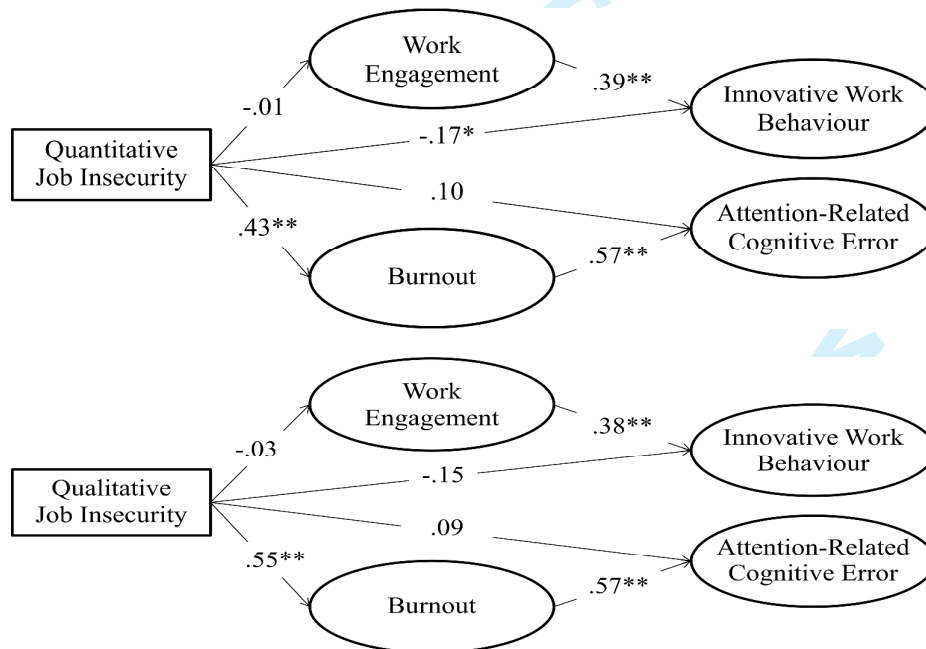


Figure 2. Structural equation models for German and Chinese samples with quantitative and qualitative job insecurity as independent variables.

Note. Numbers represent standardized regression coefficients in the unconstrained model.

** $p < 0.01$, * $p < 0.05$.

TABLE 1. Means, standard deviations, correlation matrices, and Cronbach alphas for the Chinese (N=205) and German (N=374) samples

	Chinese		German		F	p	1	2	3	4	5	6
	Mean	SD	Mean	SD								
1. Quantitative Job Insecurity	3.29	1.30	2.51	1.23	48.48	<.01	.89/.91	.55**	-.35**	.48**	-.13**	.18**
2. Qualitative Job Insecurity	3.29	1.20	2.98	1.89	7.70	.01	.70**	.86/.90	-.42**	.55**	-.23**	.18**
3. Work Engagement	4.19	.87	4.03	1.05	3.00	.08	-.01	-.03	.90/.95	-.76**	.45**	-.26**
4. Burnout	3.09	.72	2.71	.79	33.30	<.01	.43**	.53**	-.27**	.80/.92	-.37**	.42**
5. Innovative Work Behaviour	4.00	.78	3.71	.93	12.32	<.01	-.17*	-.17*	.39**	-.23**	.83/.86	-.08
6. Attention-Related Cognitive Errors	3.07	.99	2.41	.72	83.83	<.01	.32**	.40**	.05	.64**	-.06	.94/.89

Note. Total N = 579. *p<.05; **p<.01. The upper triangle is the German sample correlation matrix, the lower triangle is the Chinese sample correlation matrix. Cronbach alphas are on the diagonal.

