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# **The associations of quantitative/qualitative job insecurity and well-being: the role of self-esteem**

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**Title page**

**The associations of quantitative/qualitative job insecurity and well-being: the role of self-esteem**

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**The associations of quantitative/qualitative job insecurity and well-being: the role of self-esteem**

**Abstract**

Job insecurity is recognized as one of the most prominent job stressors for employees. Despite decades of research, the concurrent examination of both quantitative (i.e. perceived threat of job loss) and qualitative (i.e., perceived threat of losing some job features) job insecurity and the analysis of their different relationships with well-being at work have received relatively scarce attention. This study examined a moderated mediation model of the relationship between quantitative job insecurity and well-being at work. In doing so, the focus was on the mediating effects of qualitative job insecurity and the moderating effects of self-esteem in the above-mentioned relationships. Drawing from Warr's model, four indicators of well-being at work were included (i.e., vigor, emotional exhaustion, job satisfaction and psychological symptoms) offering a more detailed analysis of the consequences of job insecurity. A sample of 751 Italian employees participated in a self-report questionnaire. Results showed that qualitative job insecurity fully mediated the effects of quantitative job insecurity on outcomes. Concerning job satisfaction, the conditional indirect effect of quantitative job insecurity varied significantly on the basis of self-esteem, showing the moderating role of the latter variable. These findings provided additional evidence of the different role of job insecurity dimensions on well-being in workplaces. Moreover, the overall moderated mediation analysis provided new insights about the buffering role of self-esteem. Finally, implications for human resource management and stress management were provided.

**Keywords**

Job insecurity; self-esteem; well-being at work; moderated mediation model.

Current trends in the global economy are constantly pushing organizations to be more competitive, to maximize profits and minimize costs. This explains the increasing trend of downsizing, restructuring, mergers and acquisitions seen in the last few decades, in particular after the 2008 global economic crisis (World Economic Situation and Prospects, 2016). One implication of this development is a sharp increase in perceived job insecurity among working population (Eurofound & EU-OSHA, 2014). Consequently, job insecurity is one of the most common job stressors (De Witte, Vander Elst, & De Cuyper, 2015; Höge, Sora, Weber, Peiró, & Caballer, 2015). Specifically, some researchers have distinguished between quantitative (i.e., perceived threat of job loss) and qualitative job insecurity (i.e., perceived threat of losing some job features) (Hellgren, Sverke, & Isaksson, 1999). Both forms of job insecurity have been considered severe job stressors (De Witte, 1999), resulting in serious negative consequences for employees and organizations (for meta-analyses, see Cheng & Chan, 2008; Sverke, Hellgren, & Näswall, 2002). However, only a few studies have examined the concurrent consequences of quantitative and qualitative job insecurity, with mixed findings (e.g., De Witte et al., 2010).

Based on these considerations, the aim of this study is to examine the associations of both quantitative and qualitative job insecurity with well-being at work. Furthermore, we suggest that qualitative job insecurity may mediate the association of quantitative job insecurity with well-being at work. In addition, as several studies have suggested that the consequences of job insecurity may not be the same for all individuals (e.g., Callea, Urbini, Ingusci, & Chirumbolo, 2016; Lo Presti & Nonnis, 2012), we investigate the moderating effect of one specific personality factor, i.e., self-esteem. In particular, we concentrate on the buffering role of self-esteem in the relationship between (quantitative and qualitative) job insecurity and well-being at work. Overall stress buffers are factors that alleviate or reduce the negative consequences of a stressor on well-being or other relevant outcomes (e.g., Cheng, Mauno, & Lee, 2014; Mak & Mueller, 2000).

Our study contributes to the literature in several ways. First, we focus on both forms of job insecurity, examining their different consequences and testing, for the first time in job insecurity

studies, the presence of a mediational process between them. Second, we analyze a wide range of outcomes, based on a theoretical model of well-being at work by Warr (2007). In our view, Warr's model offers an original and interesting starting point for research concerning the well-being consequences of job insecurity. Studying how the two forms of job insecurity may be differently related to four well-being outcomes based on the Warr's model may help to understand whether their consequences concern more displeasure-pleasure and/or low-high mental activation axes. Third, we examine, for the first time, the moderating role of self-esteem on the consequences of both forms of job insecurity. Fourth, the findings provide additional empirical evidence about job insecurity and its consequences in Italy, a country that is relatively under-represented in this research field.

Although the relationship between job insecurity and well-being has been extensively examined (for reviews and meta-analyses, see Cheng & Chan, 2008; De Witte, Pienaar, & De Cuyper, 2016; Sverke et al., 2002), an additional and unique contribution of our study regards the joint examination of quantitative and qualitative job insecurity as predictor and mediator, respectively, within a moderated mediation model where self-esteem could act as a moderator.

Better understanding on the different consequences on well-being at work of qualitative and quantitative job insecurity, as well as the potential buffering role of self-esteem, may have significant implications for human resource managers. Interventions may be implemented in order to foster employees' self-esteem, tailor internal communication procedures aimed at reducing the drawbacks of rumors concerning threats to overall job or specific job features, as well as intervening through appropriate actions on those outcomes which suffer more from one form of job insecurity or another once the organizational levels of qualitative and quantitative job insecurity have been assessed.

### **Job insecurity and well-being at work**

As anticipated above, several authors share the assumption that job insecurity is a work stressor that leads to higher strain, as well as lower well-being and health. In order to explain these associations,

different explanations may be provided based on different theoretical perspectives (e.g., De Witte, Vander Elst, & De Cuyper, 2015). Consistently with transactional stress theory (Lazarus & Folkman, 1984), job insecurity, as one of the most prominent work stressors, may negatively affect well-being in workplaces because it leads to a strain reaction. Job insecure employees experience strain because they need to invest emotional and physical resources to cope with the threatening anticipation of job loss (e.g., Reisel et al., 2010). More specifically, job insecurity involves lack of resources, in particular control over two factors such as predictability and controllability (De Witte et al., 2015). As a matter of fact, job insecurity implies both unpredictability and uncontrollability (De Witte, 1999) where the former concerns uncertainty what the future holds, creating a dilemma whether to act or not to act, whereas the latter refers to a total powerlessness to keep the job. From this point of view, job insecurity involves resource depletion and this then leads to poorer employee well-being as a strain outcome (De Witte et al., 2016).

The present study is grounded on the seminal theoretical model by Sverke and Hellgren (2002), who defined job insecurity as a subjectively experienced, multidimensional, phenomenon that may have consequences on individual job and organizational attitudes, as well as on well-being (see Cheng & Chan, 2008; De Witte et al., 2016; Sverke et al., 2002). At the same time, our study extends this model by referring to a more complex conceptualization of such outcomes, that is, the model of well-being at work by Warr (2007). Warr's (2007) model has not hitherto been used in job insecurity studies for differentiating between different clusters of outcomes. Specifically, Warr conceptualized well-being at work through two axes: 1) from displeasure to pleasure, 2) from low to high mental activation. Based on these axes, Warr distinguished between four categories of individual well-being: high-activation negative, high-activation positive, low-activation positive, low-activation negative. Based on this distinction, we chose as outcome for high-activation positive and negative related to well-being, respectively, vigor at work as dimension of work engagement (Schaufeli, Bakker, & Salanova, 2006) and psychological symptoms (Lehto & Sutela, 2008).

Similarly, for low-activation positive and negative well-being we included job satisfaction (Pejtersen, Kristensen, Borg, & Bjorner, 2010) and emotional exhaustion as a dimension of burnout (Maslach & Jackson, 1981). Then, in this study, well-being at work was described through the four indicators mentioned above.

Previous research has shown the associations of quantitative job insecurity with these four well-being outcomes. In particular, De Witte and colleagues (2015), comparing the results of the meta-analyses by Sverke and colleagues (2002) and by Cheng and Chan (2008), explained that quantitative job insecurity was negatively related to mental well-being, physical health and job satisfaction. Other studies have suggested that quantitative job insecurity was positively related to emotional exhaustion (Mäkikangas & Kinnunen, 2003; Piccoli & De Witte, 2015) and negatively related to vigor at work (Vander Elst, Van den Broeck, De Cuyper, & De Witte, 2014; Vander Elst, Van den Broeck, De Witte, & De Cuyper, 2012). Although even qualitative job insecurity is considered as a job stressor with negative consequences for both the employee and the organization (De Witte, De Cuyper, Vander Elst, Vanbelle, & Niesen, 2012), its consequences on employee well-being, compared to quantitative job insecurity, remained under-explored (Vander Elst et al., 2014). However, some studies have revealed that qualitative job insecurity was also related to lower psychological well-being (Richter, Näswall, Bernhard-Oettel, & Sverke, 2013) and job dissatisfaction (Hellgren et al., 1999; Urbanaviciute, Lazauskaite-Zabielske, Vander Elst, Bagdziuniene, & De Witte, 2015). A few studies have found a positive relationship between qualitative job insecurity and emotional exhaustion (e.g., De Witte et al., 2010). To the best of our knowledge, no study has yet examined the relationship between qualitative job insecurity and vigor at work, which will be done in our study.

Based on previous empirical evidence and stress models, we hypothesized that:

*Hypothesis 1<sub>a,b</sub>*: Quantitative job insecurity is positively related to displeasure outcomes (i.e., psychological symptoms, emotional exhaustion) (H1a) and negatively related to pleasure outcomes (i.e., vigor at work and job satisfaction) (H1b).

*Hypothesis 2<sub>a,b</sub>*: Qualitative job insecurity is positively related to displeasure outcomes (i.e., psychological symptoms, emotional exhaustion) (H2a) and negatively related to pleasure outcomes (i.e., vigor at work and job satisfaction) (H2b).

### **Quantitative and qualitative job insecurity: which comes first?**

Quantitative and qualitative job insecurity are separate constructs because they concern different aspects of job insecurity (Hellgren et al., 1999). Some studies have examined the relationship between quantitative and qualitative job insecurity. For instance, De Cuyper, De Witte, Vander Elst, and Handaja (2010) found a positive, albeit low, correlation between these two forms of job insecurity. Apart from bivariate correlations, no empirical study seems to suggest a direction in the relationship between quantitative and qualitative job insecurity. However, some propositions could be drawn from previous studies and contributions. First, Greenhalgh and Rosenblatt (1984), who were the first to introduce the distinction between quantitative and qualitative insecurity, argued that although a loss of valued job features certainly represents an aspect of job insecurity, it is likely that this threat, i.e. qualitative job insecurity, is “less severe because organizational membership—and all that such membership means to the individual—is not lost” (p. 441). Also Sverke and Hellgren (2002) noted that the issue reflecting concerns about employment continuity could be more important than the threat of loss of specific job functionality. Finally, De Witte and colleagues (2015) argued that these two concepts tend to be strongly correlated, given that losing one’s own job obviously implies losing also valued aspects of the job. Moreover, Vander Elst and colleagues (2012) have underlined that job insecurity may be explained in terms of frustration of psychological needs, a proposition that goes back to Jahoda’s theory (1982) on the effects of unemployment.

Building on Jahoda’s theory, quantitative job insecurity concerns the frustration of a general need, that is, the continuity of one’s own job, while qualitative job insecurity concerns the frustration of particular needs such as, for instance, job quality or competence utilization. Therefore, the frustration of this general need may anticipate the frustration of specific manifest and latent job features such as, for instance, the need for financial security or for career advancement. In line with

these assumptions, we argue that quantitative job insecurity anticipates qualitative job insecurity. Thus, an employee might perceive - emotionally and cognitively - the threat of losing specific job features as a consequence that she/he perceives an overall threat to his/her own job.

Indeed, there are two main explanations according to which quantitative job insecurity may lead to qualitative job insecurity, thus leaving the latter to be appraised as a more proximal stressor/threat to an individual's well-being. First, from a psychological point of view, the threat of losing specific job features is usually more salient to an individual's daily experiences than the possibility of losing the actual job, that is, individuals experience a long-lasting and progressive threat to specific job features before potentially developing a fear about losing the overall job. Second, from a logical point of view, losing the actual job obviously implies losing specific job features (De Witte et al., 2010), while the contrary is not tenable.

Thus, we propose that qualitative job insecurity mediates the association between quantitative job insecurity and outcomes. Simply put, the fear of losing one's own job leads to the fear of losing specific job features. In other words, the negative consequences of quantitative job insecurity "pass through" qualitative job insecurity. Therefore, we hypothesize that:

*Hypothesis 3:* Quantitative job insecurity and qualitative job insecurity are positively related, but the concepts are not overlapping (showing only low to modest correlation).

*Hypothesis 4<sub>a,b</sub>:* Qualitative job insecurity will mediate the indirect associations of quantitative job insecurity with pleasure (i.e., vigor at work and job satisfaction) (H4a) and with displeasure (i.e., psychological symptoms, emotional exhaustion) outcomes (H4b).

### **The buffering role by self-esteem**

The above-mentioned theoretical model by Sverke and Hellgren (2002) does not only postulate that job insecurity has negative effects on well-being, job and organizational attitudes, but also that such effects can be moderated by three clusters of variables, namely: individual differences, fair treatment, and social support. The present study is grounded on the above-mentioned theoretical model in testing the buffering effect of a personality variable, i.e., self-esteem, in the relationship

between job insecurity and its outcomes.

In stress literature, personality characteristics are generally expected to buffer the adverse consequences of stressors on strain-related outcomes (Park, Beehr, Han, & Grebner, 2012). Among personality characteristics, the role of self-esteem (i.e., an individual's general sense of his or her value or worth; see Rosenberg, 1979), in the relationships between quantitative, and above all, qualitative job insecurity and well-being outcomes is not yet clear examined. In particular, self-esteem is one of the most extensively investigated personal resources in the work context (e.g., Mäkikangas & Kinnunen, 2003) and may influence stress reactions by moderating the relationship between stressors and stress reactions. In this regard, a person with higher self-esteem may be more likely to view a stressful work situation as challenging rather than threatening. Mäkikangas and Kinnunen (2003), starting from the consideration that "individuals exposed to the same environmental conditions may express remarkably different psychological, physical, and behavioral reactions on account of different personality characteristics" (p. 538) as, for instance, self-esteem, grounded their empirical examination on Brockner's (1988) *plasticity hypothesis*. According to this hypothesis individuals low at self-esteem tend to be more susceptible to environmental events (i.e. job stressors as, for instance, job insecurity) than those with higher self-esteem. Oppositely, people with higher self-esteem are expected to be more plastic, that is, more adaptable to external circumstances and stressors, and more importantly high self-esteem individuals more easily counteract their negative consequences, also showing better coping strategies in response to stress.

Moreover, there are no studies examining the role of this moderator among Italian workers. For these reasons, we specifically investigated self-esteem as a moderator (specifically as a stress buffer). Indeed, several studies have investigated the buffering role of self-esteem in the relationships between job stressors and well-being (e.g., Barker, 2007; Chun, 2000; Locke, McClear, & Knight, 1996). As regards to job insecurity studies, however, just three previous studies (Kinnunen, Feldt, & Mauno, 2003; Mäkikangas & Kinnunen, 2003; Orpen, 1994) have examined the buffering role of self-esteem in the relationship between job insecurity and well-being

outcomes. In addition, evidence of this buffering relationship concerning quantitative job insecurity is mixed. Kinnunen, Feldt, and Mauno (2003) found a reciprocal negative causation in the relationship between quantitative job insecurity and self-esteem. Orpen (1994) found a significant moderation effect of self-esteem, whereas Mäkikangas and Kinnunen (2003) did not find a significant moderation effect between self-esteem (as a moderator), job insecurity and well-being outcomes. To the best of our knowledge, no previous study has yet investigated the buffering role of self-esteem between qualitative job insecurity and well-being at work, a question that we focus on.

Even though empirical evidence is conflicting, based on the *plasticity hypothesis* (Brockner, 1988), we argue that higher self-esteem buffers the deleterious consequences of both quantitative and qualitative job insecurity on well-being at work (i.e., pleasure and displeasure outcomes). Indeed, higher levels of job demands, i.e., quantitative and qualitative job insecurity, and limited personal resources, i.e., lower self-esteem, may lead to impaired well-being. Similarly, employees with higher self-esteem may experience less negative consequences in the presence of higher quantitative and qualitative job insecurity. Consequently, we hypothesize that:

*Hypothesis 5:* Self-esteem acts as a stress buffer against the negative consequences of quantitative job insecurity on well-being at work; employees with higher self-esteem will report less negative consequences.

*Hypothesis 6:* Self-esteem acts as a stress buffer against the negative consequences of qualitative job insecurity on well-being at work; employees with higher self-esteem will report less negative consequences.

Finally, based on the previously hypothesized mediational pathways between quantitative job insecurity and well-being, through qualitative job insecurity, a moderated mediation model is expected. In fact, as we suggested before, the fear of losing one's own job may lead to the fear of losing specific job features; that is, the negative consequences of quantitative job insecurity may "pass through" qualitative job insecurity. In addition, consequently to hypotheses 5 and 6, we expected that self-esteem may play an important buffering role in such relationship; in particular,

the indirect effects of quantitative job insecurity on well-being can be predicted to be weaker for individuals high at self-esteem, given their lower susceptibility to job stressors. Thus, we hypothesized that:

*Hypothesis 7<sub>a,b</sub>*: The positive indirect effect of quantitative job insecurity on displeasure outcomes (i.e., psychological symptoms, emotional exhaustion) (H7a) and the negative indirect effect of quantitative job insecurity on pleasure outcomes (i.e., vigor at work and job satisfaction) (H7b) will be lower for individuals with higher self-esteem.

Figure 1 shows our research model including the hypothesized relationships.

-----Insert Figure 1 about here-----

## **Method**

### **Participants and procedure**

Data were collected, with convenience sampling procedure, among 751 employees (average response rate = 87.2%) of 29 Italian small and medium-sized enterprises (SMEs). We adopted this sampling procedure because SMEs are the typical Italian organization (they employ the 79.8% of the working population; ISTAT, 2014) and in order to get the highest variability in responses.

Among the participants, 427 were women (56.9%) and 324 men (43.1%). Age was evaluated through intervals: 18-25 years (n = 92; 12.3%), 26-35 years (n = 199; 26.5%), 36-45 years (n = 160; 21.3%), 46-55 years (n = 179; 23.8%), 56-65 years (n = 118; 15.7%), older than 65 years (n = 3; 0.4%). 272 respondents were single/unmarried (36.2%), 412 were married/cohabitating (54.9%), while 51 were divorced/widowed (6.8%), 16 did not respond. As regards to education level, 70 completed junior high school (9.3%), 349 completed high school (46.5%), 327 had a university degree or higher (43.5%), 5 did not respond. 477 employees held a permanent contract (63.5%), while 274 a temporary one (36.5%). Average general tenure was 15.97 years (SD = 11.37), while average organizational tenure was 10.7 years (SD = 10.3).

Respondents received a copy of the questionnaire, along with a letter of presentation and a sealable envelope in order to protect privacy. Questionnaires were distributed within organizations

by trained researchers and participation was voluntary. Filled questionnaires were collected after one-two weeks.

## Measures

*Quantitative job insecurity* was measured through a five-items (e.g., “I fear I will lose my job”) scale by Chirumbolo et al. (2015). Responses were given on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach’s  $\alpha$  was .83.

*Qualitative job insecurity* was measured through a five-items (e.g., “My future career opportunities in the organizations are favorable”) scale by Chirumbolo and Areni (2010). Responses were given on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach’s  $\alpha$  was .66.

*Self-esteem* was assessed via a ten-item (e.g., “I feel that I have a number of good qualities”) scale by Rosenberg (1965; Italian validation by Prezza, Trombaccia, & Armento, 1997). Responses were given on a 4-point Likert scale (1 = strongly disagree, 4 = strongly agree). Cronbach’s  $\alpha$  was .82.

*Vigor* was assessed with three items (e.g., “At my work, I feel bursting with energy”) from the Utrecht Work Engagement Scale (Schaufeli et al., 2006; Italian validation by Balducci, Fraccaroli, & Schaufeli, 2010). Responses were given on a seven-point frequency scale (0 = never, 6 = always/everyday). Cronbach’s  $\alpha$  was .91.

*Emotional exhaustion* was measured via five items (e.g., “I feel emotionally drained from my work”) from the Maslach Burnout Inventory (Maslach & Jackson, 1981; Italian validation by Sirigatti & Stefanile, 1993) were used. Responses were given on a seven-point frequency scale (0 = never, 6 = always/everyday). Cronbach’s  $\alpha$  was .83.

*Job satisfaction* was measured via five items (e.g., How satisfied you are with... “relationships at work”) from the Copenhagen Psychosocial Questionnaire II (Pejtersen et al., 2010). Responses were given on a four-point scale (1 = completely unsatisfied, 4 = completely satisfied). Cronbach’s  $\alpha$  was .80.

*Psychological symptoms* were rated by employees' evaluation on how often they had recently suffered from six symptoms (e.g., "I felt nervous and/or irritable") through a scale by Lehto and Sutela (2008). Responses were given on a seven-point frequency scale (0 = never, 6 = always/everyday). Cronbach's  $\alpha$  was .86.

The questionnaire also comprised a section of demographic information, including the following control variables: *gender* (1 = male, 2 = female), *educational level* (1 = junior high school or lower, 2 = high school, 3 = university or higher), *organizational tenure*, *employment contract* (0 = permanent, 1 = temporary). *Contract preference* (Clinton et al., 2005) was included as a further control variable and was assessed through four items (e.g., "My current employment contract is the one that I prefer"). Responses were given on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's  $\alpha$  was .87.

### **Data analyses**

Firstly, because a single questionnaire was used to evaluate all study variables, we addressed common method variance according to methods suggested by Podsakoff, Mackenzie, Lee, and Podsakoff (2003). Different scale endpoints and formats for the predictor and criterion measures were used in order to reduce method biases caused by commonalities in scale endpoints and anchoring effects. Moreover, items were inserted randomly into the questionnaire and scales were graphically separated from each other. A confirmatory factor analysis, via Lisrel 9.3, was carried out in order to test the differences between a one-factor structure (all items loading on a single factor) vs. a seven-factor structure (each item loading on its respective scale).

Secondly, in order to test moderated mediation hypotheses, we adopted a two-step approach (e.g., Bernhard-Oettel, Rigotti, Clinton, & de Jong, 2013). In the first step, we calculated a simple mediation model for each outcome to verify hypotheses 1-4 and to estimate the direct and indirect effects of quantitative job insecurity, as well as the direct effects of qualitative job insecurity. Because our data was cross-sectional, and in order to get more robust results, we also tested the inverse mediator model, that is, quantitative job insecurity mediating between qualitative job

insecurity and the outcomes, expecting non-significant results. In the second step, we calculated a moderated mediation model in order to verify the existence of moderated effects (i.e., hypotheses 5-6), and conditional indirect effects at different levels of self-esteem on four outcomes respectively (i.e., hypothesis 7).

The hypotheses were also tested with bootstrapping (Hayes, 2013), a nonparametric resampling procedure that does not assume normality and that involves the extraction of several thousand subsamples (5000 in our case) from a data set. With bootstrapping, the distribution of effects is empirically approximated and used for calculating confidence intervals (Preacher & Hayes, 2004). The moderated mediation analyses were performed using the PROCESS macro available for SPSS 19 (Hayes, 2013).

## Results

### Common method variance and descriptive findings

As anticipated, we carried out a confirmatory factor analysis contrasting a one-factor model and a seven-factor model and expecting that the latter would have shown better goodness of fit indexes. The one-factor model showed the following indexes:  $\chi^2 = 12816.51$ , degrees of freedom = 702, root mean square error of approximation = .152, comparative fit index = .76, standardized root mean residual = .12. The seven-factor model showed better results, thus confirming the non-significance of common method variance issues:  $\chi^2 = 3453.01$ , degrees of freedom = 681, root mean square error of approximation = .075, comparative fit index = .93, standardized root mean residual = .075. Table 1 depicts the descriptive statistics and zero-order correlations for the variables.

-----Insert Table 1 about here-----

Quantitative and qualitative job insecurity were positively associated ( $r = .26, p < .001$ ). Quantitative job insecurity was positively associated with emotional exhaustion ( $r = .09, p < .05$ ) and psychological symptoms ( $r = .15, p < .001$ ); moreover, it was negatively associated with vigor ( $r = -.14, p < .001$ ) and job satisfaction ( $r = -.18, p < .001$ ). Qualitative job insecurity showed a similar, albeit stronger, pattern than quantitative job insecurity with outcome variables: emotional

exhaustion ( $r = .32, p < .001$ ), psychological symptoms ( $r = .28, p < .001$ ), vigor ( $r = -.21, p < .001$ ) and job satisfaction ( $r = -.39, p < .001$ ).

### **Mediated model**

In the first step, we tested whether qualitative job insecurity acted as a mediator between quantitative job insecurity and outcomes (controlling for gender, tenure, educational level, employment contract, and contract preference), inspecting the estimates of their respective four indirect effects. As shown in Table 2, the total effect of quantitative job insecurity (c) was significant and positive on emotional exhaustion and psychological symptoms, and negative on vigor and job satisfaction. Furthermore, quantitative job insecurity predicted (a) qualitative job insecurity ( $B = .35, p < .001$ ); the latter had a significant and positive effect (b) on emotional exhaustion and psychological symptoms, and a significant and negative effect on vigor and job satisfaction. Finally, consistent with our hypotheses, qualitative job insecurity functioned as a full mediator because the indirect effect (a X b) of quantitative job insecurity was significant (vigor = -.14; emotional exhaustion = .16; job satisfaction = -.08; psychological symptoms = .14), while its direct effect (c') was non-significant. In fact, none of the confidence intervals referring to the indirect effects contained zero, so statistical significance was proven.

-----Insert Table 2 about here-----

Because our data were cross-sectional, we also calculated the inverse causality model, that is, quantitative job insecurity mediating between qualitative job insecurity and four outcomes. None of the indirect effects proved to be significant: CI for the indirect effect on vigor = [-.04; .03], CI for the indirect effect on emotional exhaustion = [-.05; .01], CI for the indirect effect on job satisfaction = [-.01; .01], CI for the indirect effect on psychological symptoms = [-.03; .03]. Therefore, additional support to our hypothesis on the mediating role of qualitative job insecurity was found.

### **Conditional indirect models: self-esteem as a moderator**

In the second step, we tested our hypotheses on the buffering effects of self-esteem in the relationship between job insecurity (both types) and four outcomes. As shown in Table 3 and in

Figure 2, the first set of analyses (as for Table 2, covariates were included but not shown for space reasons), tested for direct and moderated effects for each of the four outcomes. One interaction term was found to be significant, that is, qualitative job insecurity interacted with self-esteem in predicting job satisfaction ( $B = -.08, p < .001$ ). The negative association between qualitative job insecurity and job satisfaction was negatively stronger when self-esteem was higher ( $B = -.25, p < .001$ ); while at lower values of self-esteem, this association was weaker ( $B = -.07, p < .01$ ). Additionally, at lower levels of qualitative job insecurity, employees with higher self-esteem were more satisfied than employees with lower self-esteem, while at higher level of qualitative job insecurity the difference in respect to values of self-esteem was near to zero. In other words, self-esteem makes a difference when job insecurity is lower, while its positive effect disappears when job insecurity increases. Only the model in reference to job satisfaction was found to be a moderated mediated model (Index =  $-.025$ ; CI:  $[-.043; -.010]$ ). In fact, the indirect effect of quantitative job insecurity on job satisfaction through qualitative job insecurity was stronger ( $B = -.07$ ) at higher values of self-esteem, and weaker at lower values ( $B = -.02$ ). It was thus shown that, apart from the negative direct effect on job satisfaction by the threat to specific job features, the fear of losing his/her own job showed a direct negative effect only when self-esteem was higher. Finally, it is noteworthy that self-esteem was positively associated with well-being at work, particularly regarding vigor.

-----Insert Table 3 about here-----

-----Insert Figure 2 about here-----

### Discussion

The present study was designed to examine the roles of qualitative job insecurity and self-esteem in the relationship between quantitative job insecurity and well-being at work. Firstly, based on several previous studies (e.g., Cheng & Chan, 2008; De Witte et al., 2015; Sverke et al., 2002) we hypothesized that quantitative and qualitative job insecurity would be positively related to displeasure outcomes and negatively related to pleasure outcomes, describing well-being at work.

The results supported our hypotheses because both dimensions of job insecurity showed negative consequences on well-being at work, both high and low mental activation.

Secondly, we also investigated the associations between quantitative/qualitative job insecurity and well-being at work in order to clarify the inconsistent previous evidence as argued by De Witte et al. (2010). Our results suggested that two dimensions of job insecurity were differently related to displeasure outcomes, i.e., emotional exhaustion and psychological symptoms, and to pleasure outcomes, i.e., vigor and job satisfaction. In particular, the consequences of qualitative job insecurity were stronger than the consequences of quantitative job insecurity on four outcomes based on Warr's model of well-being at work. Although some authors have suggested that concerns about employment continuity may be more important than qualitative job insecurity (Sverke & Hellgren, 2002), our results were consistent with Vander Elst and colleagues (2012), suggesting that frustration of specific psychological needs could be more serious than a general fear. A possible explanation is that qualitative job insecurity refers to both tangible aspects of daily job and the potential loss of quality in the employment relationship, while quantitative job insecurity concerns a general threat to the job as a whole, a time-span of which can be more far in the future.

For the first time, we also hypothesized that qualitative job insecurity mediated the association between quantitative job insecurity and well-being in workplaces. The results supported our hypothesis, showing that qualitative job insecurity fully mediated the relationship between quantitative job insecurity and the outcomes. In other words, the direct effects of quantitative job insecurity on vigor, emotional exhaustion, job satisfaction, and psychological symptoms were not significant, while indirect effects via qualitative job insecurity were significant. These results highlight that qualitative job insecurity can be considered as a mediator with respect to quantitative job insecurity and that the effects of quantitative job insecurity on well-being at work pass through qualitative job insecurity.

According to previous studies (Cheng et al., 2014; Folkman & Moskowitz, 2004; Mauno & Rantanen, 2013; Taylor & Stanton, 2007) and to the *plasticity hypothesis* (Brockner, 1988), we

hypothesized that self-esteem, as a personality characteristic, may act as a buffer in our moderated mediation model. In other words, we expected that the negative consequences of quantitative and qualitative job insecurity on well-being at work would be weaker for employees with higher self-esteem, since high self-esteem should operate as a stress buffer. The results did not support our hypotheses; self-esteem only moderated the relationship between qualitative job insecurity and job satisfaction, in terms of both direct and indirect effect. Somewhat surprisingly, graphical inspection of this interaction effect showed that the consequences of the threat of losing some job features on job satisfaction were more negative for employees with higher self-esteem. A potential explanation relies in the relationship between self-esteem and job satisfaction (Judge & Bono, 2001), as well as the potential intervening role of work centrality (Sharabi & Harpaz, 2010), which we did not examine. In particular, Locke, McClear and Knight (1996) noted “a person with a high self-esteem will view a challenging job as a deserved opportunity which he can master and benefit from, whereas a person with a low self-esteem is more likely to view it as an undeserved opportunity or a chance to fail” (p. 21). However, sometimes, as in the case of increasing job insecurity, jobs may not appear challenging, rather insurmountable and threatening to both daily life and one’s Self. This can be especially true if an employee’s work centrality is considered, given that work occupies a central role in the life of individuals and society in general, and it greatly contributes to individuals’ self-esteem (Sharabi & Harpaz, 2010). So, it derives that increasingly insecure jobs, rather than challenging, tend to appear as a powerful source of strain thus depleting, rather than stimulating, self-esteem. Accordingly, employees with higher self-esteem and who perceive that they may lose some important job features (e.g., pay increase, career opportunities, etc.) react to such an increase in job insecurity by feeling less satisfied with their job, given that their disconfirm and subsequent disappointment are greater.

In the other seven models estimated, self-esteem did not make a difference in influencing the magnitude of the effects of job insecurity on the outcomes because the effects of the interaction terms were non-significant. It follows that the negative consequences of job insecurity on vigor,

emotional exhaustion and psychological symptoms are independent on the level of self-esteem. These results can be explained considering that these outcomes are related to health (emotional exhaustion and psychological symptoms directly, vigor indirectly being it the opposite of emotional exhaustion). In fact, also some previous studies (e.g., Mäkikangas & Kinnunen, 2003) did not find a significant moderation effect of self-esteem on the relationship between job insecurity and emotional exhaustion, mental distress and physical symptoms. Therefore, our results, in line with previous research, suggested that self-esteem did not mitigate the negative consequences of quantitative and qualitative job insecurity on health.

### **Limitations and Implications**

There are several noteworthy limitations in this study. First, being a cross-sectional study, causal interpretations of results can be hampered. Although we hypothesized that qualitative job insecurity mediated the association of quantitative job insecurity with pleasure and displeasure outcomes, these variables are reciprocally related, and we cannot completely rule out that the consequences may also occur in the opposite direction. In order to address this limitation, we tested the inverse model, but none of indirect effects was significant, supporting our hypothesis about the direction of their relationship. However, further longitudinal studies are necessary to investigate and clarify the relationship between these variables over time. Second, another limitation concerned how we measured the variables. On the one hand, all measures were self-report-based, raising potential problems of common method variance bias. On the other hand, self-report measures are the most appropriate to reflect subjective perceptions of the variables within this study. In order to cope with the problem of common method variance bias, we tested a common method factor model versus multi-factor models with CFA, following the procedure described by Podsakoff et al. (2003). The results, showing that the model with separate scales had better fit indices than the one-factor model, supported the discriminant validity of our variables. Moreover, the qualitative job insecurity scale (Chirumbolo & Areni, 2010) showed a modest reliability, so the results must be interpreted cautiously. However, several authors (e.g., Hair, Black, Babin, Anderson, & Tatham, 2006) have

proposed that in psychological research, Cronbach's  $\alpha$  higher than .60 could be acceptable. Additionally, the missing moderating role of self-esteem was opposite to Hui and Lee (2000) results, who used a measure of organization-based self-esteem and confirmed its expected buffering role against job insecurity (although on different outcomes). Future research could include both general and specific (i.e., organization-based) measures of self-esteem and try to disentangle their differential effects on job satisfaction or other relevant employee outcomes. Finally, participants were not selected by means of a probabilistic procedure and the sample is not representative of Italian workers. Although we used the bootstrapping method, in order to overcome these shortcomings that may undermine the generalizability of the findings to the total population, further research on larger and more divergent samples will be necessary.

Despite the limitations mentioned above, this study advanced job insecurity research in several ways. In regards to job insecurity studies, some scholars (e.g., De Witte et al., 2010; Hellgren et al., 1999) have tried to clarify whether quantitative or qualitative job insecurity have stronger associations with well-being at work with inconsistent results. From our perspective, quantitative and qualitative job insecurity should be considered as separate stressors because they may play different roles. This is the first study that conceptualized qualitative job insecurity as a mediator between quantitative job insecurity and well-being. Therefore, the negative consequences of quantitative job insecurity on employee outcomes can be explained through the important role played by qualitative job insecurity.

Moreover, in the present study a systematic set of outcome variables was identified on the basis of the well-being at work model introduced by Warr (2007). To our best knowledge, this is the first empirical application of Warr's model in examining the consequences of job insecurity. Warr's model provided a systematic array of well-being facets based on two dichotomies (i.e., low/high mental activation, pleasure/displeasure). Adopting Warr's model in examining stressors' outcomes can be useful in differentiating between consequences and their relative magnitude, as was demonstrated by the different effects found in the present study.

The *practical implications* deriving from these results may suggest some organizational interventions, considering that a certain amount of job insecurity seems unavoidable in the current economically turbulent times. First of all, our findings may help HR managers to distinguish between the negative consequences of each dimension of job insecurity and to understand how they might be reduced or their consequences might be best managed. Human resource policies should be aimed at developing interventions that reduce quantitative job insecurity in order to decrease its negative consequences on qualitative job insecurity and simultaneously to increase well-being at work. For example, organizations should address HRM practices for promoting interventions aimed at increasing employees' level of work engagement and job satisfaction. In this regard, organizations need to develop interventions that reduce the negative consequences of quantitative job insecurity, increasing explicit communication about future organizational plans and participation in change processes (e.g., Difonzo & Bordia, 1998; Vander Elst, Baillien, De Cuyper, & De Witte, 2010). In particular, organizational participation could decrease the negative relationship between quantitative job insecurity and work engagement (Wang, Lu, & Siu, 2015), and inclusive organizational communication processes could decrease the association of quantitative job insecurity with job satisfaction (Jiang & Probst, 2013).

In general, stress management interventions should focus on qualitative job insecurity because our results suggested that it plays a central role with respect to well-being at work. Qualitative job insecurity is based more on contextual factors that are always outside of an employee's personal control. For this reason, personal resources such as individual personality or cognitive structure play a key role for employees in handling stressful situations. To some extent these personal resources can be modified with appropriate psychosocial interventions within organizations. Practically speaking, the individual and organizational consequences of qualitative job insecurity, as a source of strain at work, may be reduced through employee assistance programmes based on coaching and mindfulness. In this regard, access to coaching may help emotionally to deal with job insecurity concerns, and it may provide an anchor to improve the organizational experience of employees.

While mindfulness-based stress reduction, that is, a mindfulness-based program may enhance the capacity to manage distressing emotions. Research on this form of mental training has been found to increase positive affect, enhancing overall employee well-being (e.g., Aikens et al., 2014; Davidson & McEwen, 2012; Ugwu & Asogwa, 2015).

Concerning other examined relationships, self-esteem did not operate as a stress buffer; and this evidence suggests that employees' self-esteem levels may not help to change the uncontrollable nature of job insecurity. Consequently, future research may adopt a more holistic personality framework including other personality factors as moderators in the relationship between job insecurity and health and well-being. In future, it would also be useful to expand research on contextual resources such as job control and social support from supervisors and co-workers as buffers to reduce the deleterious consequences of qualitative job insecurity, as well as more general factors such as culture and values (Wang, Lu, & Lu, 2014). In the contemporary working life and even more in the future, it will be especially important for employees' psychological well-being and for organizations' productivity to prevent and attenuate the negative consequences of job insecurity through stress prevention rather than stress intervention programs.

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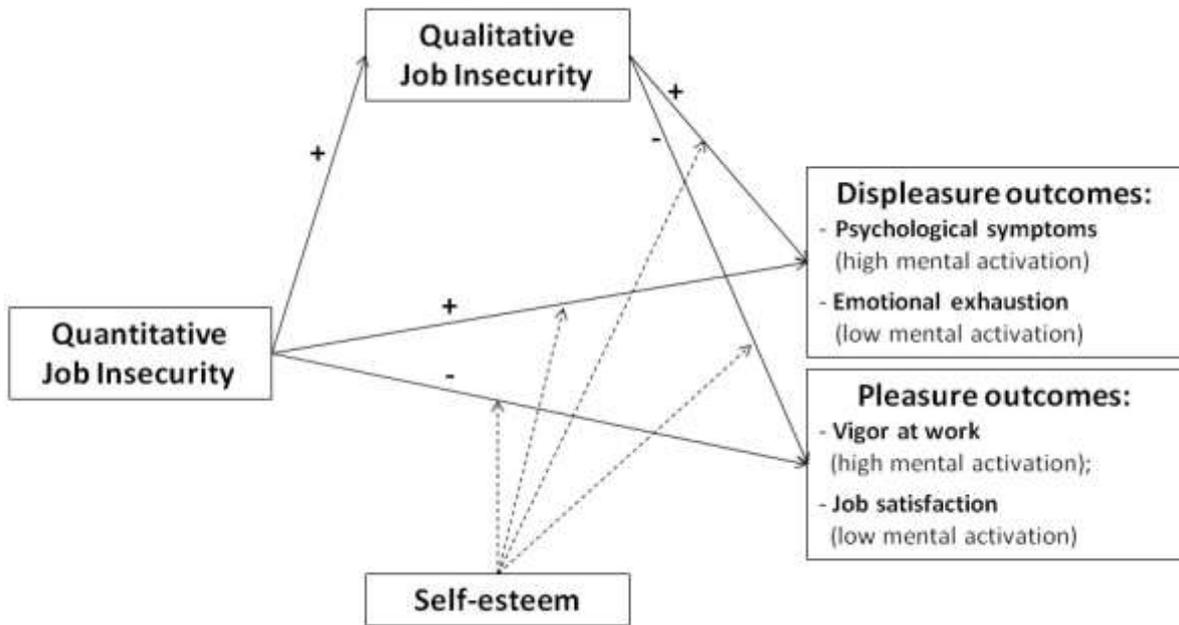
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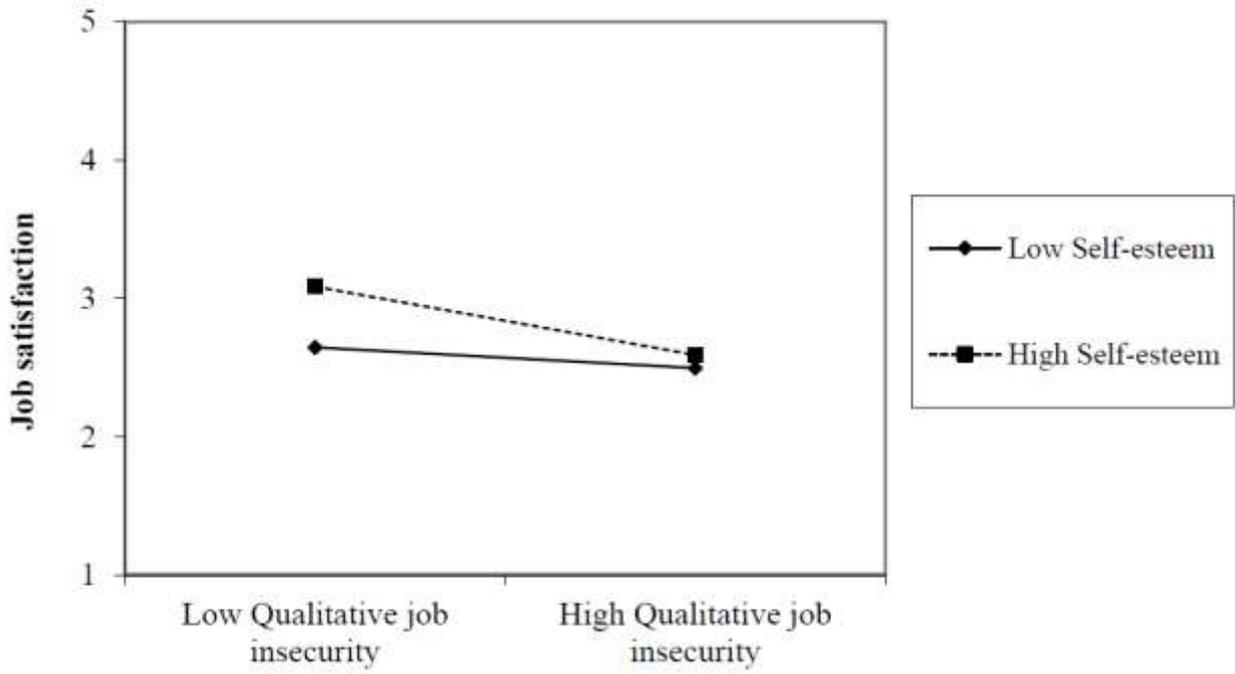
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**Figure 1.** Research model.



**Figure 2.** Job satisfaction as a function of qualitative job insecurity and self-esteem



**Table 1.** Descriptive statistics and zero-order correlations

	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1) Gender <sup>a</sup>	-	-											
2) Tenure	10.7 (10.3)	.01	-										
3) Educational level	2.34 (.66)	.22***	-.05	-									
4) Employment contract <sup>b</sup>	-	-.01	-.48***	.07	-								
5) Self-esteem	3.2 (.50)	.01	.19**	.22***	-.06	(.82)							
6) Contract preference	2.8 (1.24)	-.01	.21***	-.06	-.34***	.08*	(.87)						
7) Quantitative job insecurity	2.7 (1.02)	-.07*	-.28***	-.04	.33***	-.14***	-.24***	(.83)					
8) Qualitative job insecurity	3.13 (.80)	.02	.04	.11**	-.06	-.14***	-.23***	.26***	(.66)				
9) Vigor	3.98 (1.63)	.15***	.11**	.29***	-.05	.48***	.14***	-.14***	-.21***	(.91)			
10) Emotional exhaustion	2.29 (1.26)	-.01	-.03	-.09**	.03	-.30***	-.13**	.09*	.32***	-.30***	(.83)		
11) Job satisfaction	2.71 (.58)	-.02	.04	.01	-.06	.30***	.33***	-.18***	-.39***	.49***	-.35***	(.80)	
12) Psychological symptoms	1.89 (1.25)	.03	-.09*	-.15***	.15***	-.34***	-.20***	.15***	.28***	-.32***	.63***	-.33***	(.86)

Note. Values along main diagonal are coefficient alphas for scaled variables. \*\*\*  $p < .001$ ; \*\*  $p < .01$ , \*  $p < .05$ . <sup>a</sup> 1 = male, 2 = female. <sup>b</sup> 0 = permanent, 1 = temporary.

**Table 2.** Regression results for the four mediation models

	<i>Vigor</i>	<i>Emotional exhaustion</i>	<i>Job satisfaction</i>	<i>Psychological symptoms</i>
a	.35***	.35***	.35***	.35***
b	-.39***	.45***	-.22***	.39***
c	-.15***	.09**	-.09**	.14***
c'	-.02	-.06	-.02	.00
Indirect effect (a X b)	-.14***	.16***	-.08**	.14***
(a X b) 95% CI [LL; UL]	[-.20; -.09]	[.11; .21]	[-.10; -.06]	[.10; .19]
R <sup>2</sup>	.17***	.13***	.17***	.15***

Note. Covariates: gender, tenure, educational level, employment contract, contract preference. \*\*\*  $p < .001$ ; \*\*  $p < .01$ .

a = effect of quantitative job insecurity on qualitative job insecurity; b = effect of qualitative job insecurity on outcomes; c = total effect of quantitative job insecurity on outcomes; c' = direct effect of quantitative job insecurity on outcomes; Indirect effect (a X b) = indirect effect of quantitative job insecurity on outcome through qualitative job insecurity; CI = Confidence Interval; LL = Lower Level; UL = Upper Level.

**Table 3.** Regression results for conditional direct and indirect models

	<i>Vigor (B)</i>	<i>Emotional Exhaustion (B)</i>	<i>Job satisfaction (B)</i>	<i>Psychological symptoms (B)</i>
1. model				
Quantitative job insecurity	.02	-.09	.00	-.02
Qualitative job insecurity	-.26***	.38***	-.16***	.31***
Self-esteem	.66***	-.30***	.13***	-.33***
Quantitative job insecurity x self-esteem	-.04	.07	-.03	.01
Qualitative job insecurity x self-esteem	-.01	.04	-.08***	-.01
<i>R</i> <sup>2</sup>	.32***	.19***	.29***	.22***
	<i>Vigor boot (95% CI [LL; UL])</i>	<i>Emotional exhaustion boot (95% CI [LL; UL])</i>	<i>Job satisfaction boot (95% CI [LL; UL])</i>	<i>Psychological symptoms boot (95% CI [LL; UL])</i>
2. bootstrapping results for conditional direct effect				
-1 <i>SD</i>	.06 [-.11; .23]	-.15 [-.30; -.01]	.03 [-.03; .09]	-.02 [-.16; .12]
<i>M</i>	.02 [-.09; .13]	-.09 [-.18; .01]	.00 [-.04; .04]	-.02 [-.11; .07]
+1 <i>SD</i>	-.02 [-.17; .13]	-.02 [-.15; .10]	-.03 [-.08; .03]	-.01 [-.14; .11]
3. bootstrapping results for conditional indirect effect				
-1 <i>SD</i>	-.08 [-.15; -.02]	.11 [.06; .16]	-.02 [-.05; -.01]	.10 [.05; .17]
<i>M</i>	-.08 [-.13; -.04]	.12 [.08; .16]	-.05 [-.07; -.03]	.10 [.06; .14]
+1 <i>SD</i>	-.08 [-.14; -.04]	.13 [.08; .19]	-.07 [-.10; -.05]	.09 [.05; .15]

Note. Covariates: gender, tenure, educational level, employment contract, contract preference. \*\*\* *p* < .001; \*\* *p* < .01. CI = Confidence Interval. LL = Lower Level. UL = Upper Level.