Always looking for something better? The impact of job insecurity on turnover intentions: Do employables and irreplaceables react differently?

Balz, Anne; Schuller, Karin

Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Article

EID

Economic and Industrial Democracy
2021, Vol. 42(1) 142–159

DOI: 10.1177/0143831X18757058
journals.sagepub.com/home/eid
SAGE

Always looking for something better? The impact of job insecurity on turnover intentions: Do employables and irreplaceables react differently?

Anne Balz
GESIS – Leibniz Institute for the Social Sciences, Germany

Karin Schuller
Max-Planck-Institute for Social Law and Social Policy, Germany

Abstract

This study contributes to the current research on the effect of job insecurity on turnover intentions by examining what happens to employees when job security is replaced with employment security. It analyzes whether perceived employability and irreplaceability (a) increase or decrease turnover intentions, or (b) buffer or intensify the negative effects of job insecurity on turnover intentions. The study focuses on an international context by using International Social Survey Programme (ISSP) data to assess the generalizability of the results. The findings show that perceived job insecurity increases turnover intentions in all countries. In addition, perceived employability increases turnover intentions in most countries, whereas weak evidence suggests that employees who feel irreplaceable are less likely to have turnover intentions. The results on the question about whether employees who feel employable or irreplaceable react differently to job insecurity – with respect to turnover intentions – vary widely between countries, and so a general conclusion about buffering effects cannot be drawn.

Keywords

Employability, intention to leave, irreplaceability, job insecurity, turnover intentions

Globalization and global competition increasingly demand that organizations must be competitive and flexible to survive. This pressure is passed down to employees who are

Corresponding author:
Anne Balz, GESIS – Leibniz Institut für Sozialwissenschaften, B2 1, Mannheim, 68159, Germany.
Email: anne.balz@gesis.org

confronted by less secure and stable employment relations (e.g., Eichhorst and Marx, 2011; Kalleberg, 2000, 2003) and the need for the workforce as a whole to adapt to fluctuations in market demand. Consequently, employees are faced with increasing levels of subjective job insecurity that has received growing recognition in current research (Cheng and Chan, 2008; Sverke et al., 2002).

Job insecurity, the perception that one's current job is in danger (Greenhalgh and Rosenblatt, 1984; for an overview, see Anderson and Pontusson, 2007), has many adverse effects on employees. Numerous studies indicate that for employees, job insecurity has a negative effect on job satisfaction (De Cuyper and De Witte, 2007; Zeytinoglu et al., 2013) and also spills over into other domains of life. Job insecurity also impairs psychological well-being (Dawson et al., 2017) and psychological health (Buffel et al., 2015; Chirumbolo and Areni, 2010; De Witte, 1999), marital satisfaction (Cheng et al., 2014), and even life satisfaction (De Cuyper and De Witte, 2007). Additionally, job insecurity has a significant impact on life planning; especially long-term commitments such as marriage, having children, or purchasing residential property are often delayed (Lozza et al., 2013).

Even though flexibility may lead to companies being more competitive, the higher levels of job insecurity that accompany this increased competitiveness not only have negative effects on employees but may be problematic for companies as well. An empirical consensus exists that perceived job insecurity causes a decrease in work attitudes, such as commitment to and trust in the company and a regression in work-related behavior like performance (for an overview, see Cheng and Chan, 2008; Sverke et al., 2002). Additionally, job insecurity has been shown consistently to increase turnover intentions (Berntson et al., 2010; Furaker and Berglund, 2014; Sverke and Goslinga, 2003), which is problematic since turnover intentions are a strong predictor of actual turnover (Allen et al., 2005). Turnover can be very costly due to the expensive search for and training of replacements (who need to acquire company-specific skills and knowledge) which may be one reason why turnover rates have been shown to negatively affect productivity and the financial performance of companies (Hancock et al., 2013). Therefore, job insecurity can also be linked to negative outcomes for companies.

In light of the adverse effects of job insecurity, it seems obvious that one would wish to counteract or at least buffer them. In recent debates, some have argued that job security could be replaced by employment security, which means instead of providing employees with the security of staying long-term with a company, they are provided with the security of staying employed (Wilthagen and Tros, 2003). From this perspective, *employability* – 'the individual's perception of his or her possibilities to achieve a new job' (Berntson et al., 2010: 225) – is seen as a substitute for job security at the individual level. At the country level, this idea of contractual flexibility combined with employment and income security has been promoted under the catchphrase 'flexicurity' by policy makers (e.g. European Commission, 2007).

Regarding the individual outcomes for employees, the strategy of replacing job security with employment security could work. People who feel employable suffer less from burnout (Aybas et al., 2015) and experience fewer negative effects on their well-being (Silla et al., 2009) and life satisfaction (Green, 2011), which means that the main effects of employability and job insecurity pull in opposite directions. Therefore if – within the

flexicurity framework – job security is reduced and employability is increased, these opposing forces could possibly cancel each other out. Additionally to the main effect, an interaction effect may occur – in other words, employability seems to buffer the negative effects of job insecurity with respect to various outcomes other than turnover intentions (Aybas et al., 2015; Green, 2011; Silla et al., 2009). In these instances, very employable employees react less strongly to a reduction in job security. However, when looking at the relationship between an employee and employer, especially regarding turnover intentions, it is unclear whether employability could replace job security or act as a buffer. Instead, employability seems to rather increase turnover intentions (e.g., Berntson et al., 2010). If this is the case, both job insecurity and employability will increase turnover intentions. Additionally, it has been suggested that employees who feel employable respond more strongly to job insecurity through even higher turnover intentions, compared to employees who feel less employable (Berntson et al., 2010), so a buffering effect also seems rather unlikely. This phenomenon is problematic for organizations since turnover induces separation and replacement costs and additionally causes problems due to loss of knowledge and skills (Hancock et al., 2013: 576). With respect to employees, this phenomenon also may have adverse effects.

Even though a turnover intention can be seen as a conscious decision that an employee makes when trying to cope actively with an unpleasant situation, turnover intentions also inherently imply uncertainty about a future work situation, since the characteristics of a new (not yet found) job are unknown, which makes it difficult to plan ahead.

In addition to *employability*, perceived *irreplaceability*, which we define as an employee's perception of having very specific skills that the current organization will have difficulty replacing, could also play a role in the framework of the characteristics of coping with job insecurity. Whereas *employability* can be interpreted as the perceived external marketability of an employee (in the labor market) (Spurk et al., 2016: 290), *irreplaceability* is the perceived internal marketability (within the organization) (Spurk et al., 2016: 290).

As far as we know, no empirical study has analyzed the impact of an employee's perceived irreplaceability on turnover intentions or whether this perception might counteract or buffer the effect of insecurity on turnover intentions. In addition, since both the main effect of employability on turnover intentions (e.g., Acikgoz et al., 2016; Berntson et al., 2010) and the moderating effect of employability on the connection between job insecurity and turnover intentions have been studied only in single countries (Turkey: Acikgoz et al., 2016; Sweden: Berntson et al., 2010), we do not know whether the specific characteristics of the institutional context and labor market cause this effect, or whether the effect also exists in other countries and institutional contexts.

Our study adds to the current knowledge in the literature first by analyzing these connections in an international context by asking whether they are generalizable, and second by extending the framework of buffering factors between job insecurity and turnover intentions with the new concept of *irreplaceability*.

The research questions of this study are the following:

- What is the impact of job insecurity on turnover intentions?
- What is the impact of employability on turnover intentions?

- Can employability buffer the effect of job insecurity on turnover intentions?
- What is the impact of irreplaceability on turnover intentions?
- Can irreplaceability buffer the effect of job insecurity on turnover intentions?

In the next section, we derive our hypotheses for our research questions from empirical findings and theoretical considerations.

Empirical findings and theoretical considerations

Job insecurity and turnover intentions

A great deal of previous research has discussed how job insecurity affects job-related behavior and attitudes. So far, we know that an increase in job insecurity leads to a decrease in job attitudes, such as organizational commitment, trust, and job-related behavior like performance (for an overview, see Cheng and Chan, 2008; Sverke et al., 2002).

Job insecurity and *job-related behavior and attitudes* are multidimensional concepts operationalized in different ways in various studies. *Job insecurity* usually refers to the subjective perception that one's current job may be lost involuntarily (e.g., Greenhalgh and Rosenblatt, 1984: 438; for an overview, see Anderson and Pontusson, 2007: 214). This perception can be cognitive or affective (Anderson and Pontusson, 2007; Borg and Elizur, 1992; Näswall and De Witte, 2003). The cognitive aspect relates to the cognitive estimation of job loss (the perceived probability of job loss), whereas the affective aspect is the evaluation of this perception, which refers to the fear, worry, or anxiety associated with job loss (Anderson and Pontusson, 2007: 214). We focus on the impact of cognitive job insecurity since affective job insecurity includes both cognitive job insecurity, perceived employability, and various factors not related to the labor market, such as the income of a partner and family responsibilities (see Anderson and Pontusson, 2007).

Job-related behavior and attitudes are conceptualized as organizational commitment, which includes several dimensions (Hirschman, 1970; Porter et al., 1974). One central dimension is the 'definite desire to maintain organizational membership' (Porter et al., 1974: 604). Previous research usually has studied the opposite of this desire to stay with the company – turnover intentions (Berntson et al., 2010; Furaker and Berglund, 2014; Sverke and Goslinga, 2003). Since high turnover rates are costly for an organization because replacements have to be found and trained, the present study focuses on turnover intentions, which are the reported intentions to look actively for another job.

Studies have consistently shown that employees' intentions to leave an organization increase with perceived job insecurity (Berntson et al., 2010; Furaker and Berglund, 2014; Sverke and Goslinga, 2003; and for meta-analysis results, see Cheng and Chan, 2008; Sverke et al., 2002). This phenomenon can be explained by rational choice considerations (for an overview, see Kroneberg and Kalter, 2012) and by psychological contract theory (Rousseau, 1995).

Rational choice theory argues that decisions are made by weighing the expected utility and probability of the outcome of an action and the expected costs (Kroneberg and Kalter, 2012). With high levels of job insecurity, the utility of a finding a new, more

secure job is high, which explains the higher turnover intentions of employees who feel their job to be insecure. Other things being equal, the instant probability of finding an acceptable job typically declines by around 20% during the first half-year of a job search during unemployment (Gaure et al., 2012). However, a longer job search period pays off in terms of higher expected earnings once a job is obtained (Gaure et al., 2012). Therefore, it seems rational to be proactive and try to avoid unemployment and also to prolong available search time.

Psychological contract theory (Rousseau, 1995) makes the same prediction but for different reasons. Psychological contract theory suggests that an informal contract exists between an employer and an employee. The employee offers high productivity, devotion, and effort, whereas the employer delivers an adequate wage and a secure job (Rousseau, 1995). With the perception of job insecurity, this informal psychological contract seems violated, and thus, employees react to this violation with an increased probability to actively search for a new job. This leads us to our first hypothesis:

Job insecurity increases turnover intentions (H1).

Employability and turnover intentions

A characteristic that is argued to be a substitute for job security, and which has been discussed recently in the literature in various contexts is *employability* (De Cuyper and De Witte, 2008; De Cuyper et al., 2008; Silla et al., 2009). Employability is affected by personal adaptability, career identity, and the assessment of personal resources, such as social and human capital (Fugate et al., 2004).

Employability has been shown to increase turnover intentions (e.g., Berntson et al., 2010). The main reason for this correlation is that employables have more opportunities outside their current company, which makes it more likely that they will encounter a more appealing offer. Within a rational choice framework (see Kroneberg and Kalter, 2012), this means that the costs for searching for a new job can be expected to be considerably lower, and the probability of actually getting a more attractive offer is higher. Considering these arguments, we assume the following:

Employable individuals are more likely to have turnover intentions (H2).

Buffer effect of employability

Empirical evidence has suggested that employability shapes reactions to job insecurity with respect to various outcomes. For example, employability buffers the negative effects of job insecurity on individual outcomes such as burnout (Aybas et al., 2015), well-being (Silla et al., 2009), and life satisfaction (Green, 2011).

In addition, the Berntson et al. (2010) study also hypothesized that an employee's employability moderates the link between job insecurity and the probability of leaving an organization. In this study, the authors found that employability increases the effect of job insecurity on turnover intentions. Despite the finding of this study, when asking how employable individuals – compared to less employable individuals – would react

to job insecurity with respect to their turnover intentions, two contradictory predictions seem plausible. Arguments for both outcomes can be derived from a rational choice perspective (see Kroneberg and Kalter, 2012) and psychological contract theory (Rousseau, 1995).

From a rational choice perspective, the costs for more employable individuals with respect to finding a suitable new job are lower than for less employable individuals. At the same time, the probability of finding a new job is higher for more employable individuals (see also H2). Therefore, employable individuals also perceive that they have more control over an insecure job situation and feel less threatened by it (Ganster and Murphy, 2000; Lazarus and Folkman, 1984). Anderson and Pontusson (2007) have strengthened this argument by showing that individuals who think of themselves as employable are less concerned about losing their job. Since they are less concerned, they might also have fewer reasons to act when faced with job insecurity. Searching for a new job is costly, which explains, for example, why temporary employees make intense search efforts only six months before the end of their contracts (Kahn, 2012). Job searching demands temporal, psychological, and financial resources, even for employable individuals. Therefore, since job insecurity usually does not end in job loss, it might be more economical to wait. Even though employees' perceptions of job insecurity help to predict actual job loss, respondents grossly overestimate the probability of job loss (Dickerson and Green, 2012). Even among those employees who were absolutely sure they would lose their job, only 40% of them actually lost their job (Dickerson and Green, 2012).

Especially in times of skill shortages, an organization generally provides continuing work opportunities for employees with high employability (Spurk et al., 2016). However, possibly they do not communicate their intentions clearly and ahead of time, which leaves the employees with feelings of insecurity for an extended length of time. However, only employable employees can afford to wait, since they can expect their job loss to be followed by short job search periods.

On the other hand, employees who perceive themselves as less employable might not be able to afford to wait for an organization's decision about whether or not they have a continuing job with the organization. Since they anticipate longer job search periods in case of job loss, they may be better off to start searching immediately for a new job, when they are faced with job insecurity. This scenario implies that employable individuals who experience job insecurity are more likely to wait, and less likely to look actively for another job.

From a psychological contract perspective (Rousseau, 1995), an argument can be made that for employable employees, job security might not be that important because of the reasons previously outlined. Therefore, they may not perceive job insecurity as such a severe breach of the informal contract.

If this line of argument is true, we would expect to observe the following:

Employability decreases the effect of job insecurity on turnover intentions (H3a).

However, psychological contract theory (Rousseau, 1995) also can be used to predict the opposite outcome. Since employees who perceive their job to be insecure may

perceive this insecurity as a breach of the informal contract, they may not feel obligated to fulfill their end of the deal. Job insecurity may feel especially unfair to employees who perceive their labor market value to be high and thus experience an even stronger reaction to job insecurity than individuals who feel less employable.

In addition, a rational choice argument for this outcome can be made. All employees feel uncomfortable when faced with job insecurity. Even though people who are employable worry less when faced with job insecurity, they still worry to some degree and have to deal with the situation. Employees often use two coping strategies to deal with unsatisfactory situations. First, they simply may evaluate the situation in another way to avoid feelings of dissatisfaction towards an otherwise unchanged situation (Lazarus and Folkman, 1984). Since they are less worried about job insecurity, they can try to accept it. This would predict H3a to be true. Second, an individual who is dissatisfied with her/his employment situation could try to change it (Lazarus and Folkman, 1984). The second coping strategy would predict that employees who experience job insecurity will try to leave their organization. Since the costs to find a new job are lower for employable individuals, and at the same time, the probability of a positive job search outcome is higher, the second coping strategy seems more attractive to employable individuals than less employable individuals.

This argument leads to the following assumption:

Employability increases the effect of job insecurity on turnover intentions (H3b).

Irreplaceability and turnover intentions

In contrast to employees with high *employability*, who possess high 'marketplace bargaining power' (Silver, 2003: 13), employees with high *irreplaceability* possess high 'workplace bargaining power' (Silver, 2003: 13), and therefore high 'perceived internal marketability [which] describes the self-assessed value and employability of individuals for their current organization' (Spurk et al., 2016: 290).

We assume that this employee perception of *irreplaceability* stems from a personal evaluation of one's 'workplace bargaining power.' Therefore, it depends on his/her skills and resources, the demand for these skills within the company, and the supply of these skills and knowledge on the labor market (Silver, 2003: 13). Since this assessment is a subjective evaluation, it probably also includes some feedback from the organization.

It can be assumed that the perception of being irreplaceable also provides employees with a sense of purpose and self-worth, and can be interpreted as an additional utility within a rational choice framework (Kroneberg and Kalter, 2012). Therefore, one can expect that employees who feel irreplaceable will be less likely to look for another place to work. From a psychological contract theory perspective (Rousseau, 1995), we would predict that this perception of irreplaceability further strengthens the employee's felt obligation towards the employer.

This leads us to the following hypothesis:

The perception of irreplaceability decreases turnover intentions (H4).

Buffer effect of irreplaceability

But how do individuals who think of themselves as irreplaceable react when experiencing job insecurity? Generally, as described in the preceding sections, employees who have accumulated organization-specific skills can be expected to demand more job security as a return on their investments – compared to employees who can be replaced easily – since they have accumulated more firm-specific capital that they would lose if they changed employers. Therefore, according to psychological contract theory (Rousseau, 1995), employees who have accumulated organization-specific skills, and thus feel irreplaceable, may perceive feelings of job insecurity as especially unfair. This perceived breach of the psychological contract can be expected to lead to even greater intentions to leave the company.

Thus, if this is true, we would expect to observe the following:

Irreplaceability increases the effect of job insecurity on turnover intentions (H5a).

However, the story may be quite different when the perception of job insecurity is not actively produced by the organization (e.g., by using fixed-term contracts or giving ambiguous signals to employees) but rather is due to an external threat for which the organization is not responsible (e.g., a problematic financial situation, difficult economic circumstances, drop in demand, high unemployment rate). Based on psychological contract theory (Rousseau, 1995), it can be assumed that when an organization makes an employee feel valuable, she/he will be even more loyal to the organization as a way to fulfill the informal contract mentioned earlier. Moreover, 'irreplaceable' employees will be less threatened by drops in demand since it can be assumed that they would be the last to be dismissed. In addition, individuals who feel irreplaceable usually are well integrated into intra-organizational networks and communications, which provide them with better access to further opportunities (Spurk et al., 2016). If this is true, we would expect to observe the following:

Irreplaceability decreases the effect of job insecurity on turnover intentions (H5b).

An overview of the hypotheses is given in Figure 1. The following section is an overview of the data and methods used to analyze these hypotheses.

Data and methods

The empirical analyses are based on the 2005 survey of the International Social Survey Programme (ISSP Research Group, 2013).[1] The ISSP includes 31 countries: Germany, Great Britain, Ireland, Norway, Sweden, Spain, France, Portugal, Denmark, Switzerland, Flanders, Finland, Hungary, Czech Republic, Slovenia, Bulgaria, Latvia, Cyprus, Russia, Philippines, Israel, Japan, Taiwan, South Korea, Mexico, Dominican Republic, United States, Canada, Australia, New Zealand, and South Africa. Our sample includes all employees between the ages of 18 and 69.

In total, our target population included 24,811 employees. We used list-wise deletion since it is most robust to violations of the Missing at Random-Assumption on the

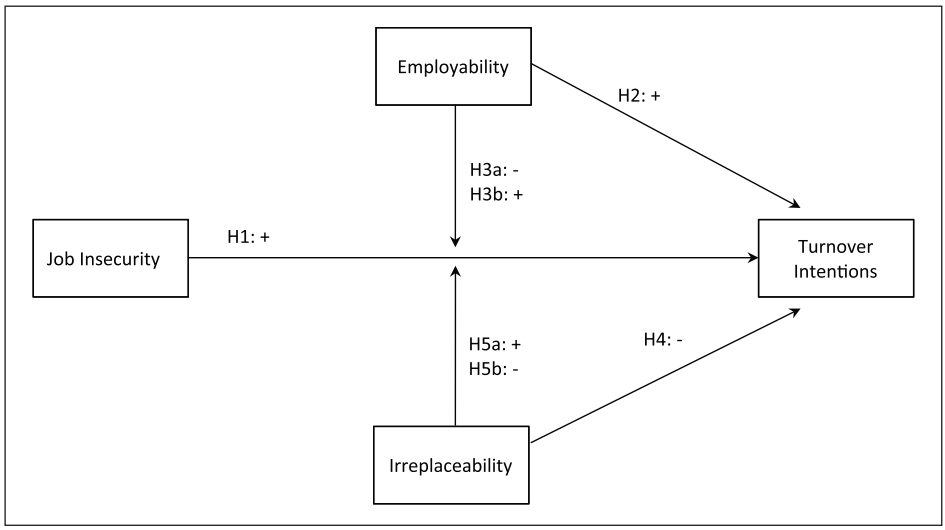

Figure 1. Overview of hypotheses.
Source: Authors of the present study.

independent variables (Allison, 2001: 6). Due to missing values on our dependent and independent variables, 19,357 cases were available for analysis. Our sample consisted of 350–1085 respondents in each country, with a mean of 628 respondents (for an overview of the sample, see Appendix A online).

The dependent variable in our analysis was *turnover intentions*, which was measured on a four-point scale (see Table 1). The independent variables – *job insecurity, employability*, and *irreplaceability* – were measured on a five-point scale.[2]

We included two groups of control variables in our models (for an overview, see Appendix A online). The first group measured structural variables, such as working time (part-time vs. full-time), sex, age, and formal education (no formal education, lowest formal education, above lowest qualification, higher secondary completed, above higher secondary level, university degree completed), which have been shown to affect job insecurity (Berntson et al., 2010; Näswall and De Witte, 2003) and turnover intentions (Clark, 2001; Sousa-Poza and Sousa-Poza, 2007).

The second group of control variables accounted for eight important job characteristics that can be expected to influence turnover intentions. We used five items to measure the valued aspects of a current job (perception that income is high, job is interesting, possibility to work independently, possibility to help others, job is useful for society) and four items to measure strains (exhaustion after work, work is physically hard, work is stressful, work is dangerous).

To test our hypotheses, we used a linear ordinary least squares (OLS) regression. Since our substantial interest is in interaction effects, we decided against ordinal models, since they make the interaction extremely difficult to present and interpret. In addition, since we wanted to see whether or not the effects were identical (or similar) across

Table 1. Description of central variables.

	Mean (SD)	%
Turnover intentions	1.98 (1.01)	
(How likely is it you will try to find a job within the next 12 months?)		
1 Very unlikely		41.18
2 Unlikely		30.58
3 Likely		17.66
4 Very likely		10.57
Job insecurity	2.37 (1.13)	
(My job is secure.)		
1 Strongly agree		23.23
2 Agree		40.62
3 Neither agree nor disagree		16.50
4 Disagree		15.09
5 Strongly disagree		4.56
Employability	2.64 (1.18)	
(Easy or difficult to find a job as good as the current job?)		
1 Very difficult		18.24
2 Fairly difficult		32.66
3 Neither easy nor difficult		22.95
4 Fairly easy		19.20
5 Very easy		6.95
Irreplaceability	2.75 (1.21)	
(Easy or difficult for the firm to replace you?)		
1 Very easy		17.32
2 Fairly easy		28.17
3 Neither easy nor difficult		25.21
4 Fairly difficult		20.46
5 Very difficult		8.85

Source: ISSP 2005; authors of present study's own calculations.
N = 19,357 respondents.

countries in the dataset, we ran a separate regression analysis for each country in the dataset and examined the coefficients across countries. In ordinal models, coefficients are not comparable across samples due to heterogeneity on unobserved variables (Mood, 2010), which is the second reason for using a linear model.[3]

In addition, we calculated the coefficients for geographical regions (with robust standard errors) to obtain a larger sample. This strategy served as an additional check for cases in which a significant effect could not be found in the countries. Thus, we were able to determine whether the non-existence of an effect was due only to a small sample size, and the resulting large confidence intervals. However, pooled results were only interpreted this way when the effects within a region pointed in the same direction for all included countries.

Results

This section presents the results of the regression analyses. We show the effects of *job insecurity, employability*, and *irreplaceability* on turnover intentions in three steps. Model 1 considers the main effect of job insecurity on turnover intentions. Model 2 adds the main effects of *employability* and *irreplaceability* on turnover intentions. Model 3 adds the interaction effects between *employability* and *job insecurity*, and *irreplaceability* and *job insecurity*. All three models also include control variables. Instead of presenting tables, we plotted the predicted linear effects of our central variables on turnover intentions. We also included the confidence intervals. For all graphs, we separately plotted the coefficients for each country.

Since the effect of job insecurity on turnover intentions is basically identical when employability and irreplaceability are included – which is due to the very low correlations between the three concepts (correlations between –.09 and –.01) – we only present the results from Model 2 (Figure 2) and Model 3 (Figure 3). Figure 2 displays the main effects of job insecurity, employability, and irreplaceability on turnover intentions in each country and region so to analyze how these three factors separately affect turnover intentions. The figures present the point estimates for the predicted linear effects and the 95% confidence intervals.

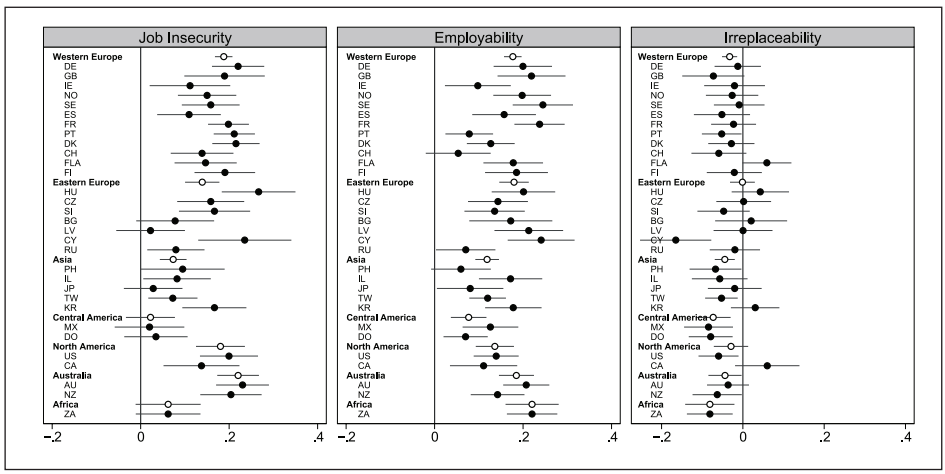

Figure 2. Effect of job insecurity, employability, and irreplaceability on turnover intentions.
Source: ISSP 2005; estimations from Model 2.
Note: Predicted linear effects on turnover intention and 95% confidence intervals.

In accordance with previous research, we found that in most countries, job insecurity significantly increases turnover intentions. We found very few exceptions (Bulgaria, Japan, Latvia, Taiwan, Dominican Republic, Mexico, South Africa) for which the effects were comparatively small and/or statistically not significant. Therefore, Hypothesis 1 can be confirmed – job insecurity increases turnover intentions – and this connection seems to be rather universal.

We also found that employability significantly increases turnover intentions in almost all countries. Very few exceptions exist for which the effect is not significant (Switzerland and Philippines). This finding supports Hypothesis 2. Feeling employable seems to make employees more inclined to look for another job.

With respect to irreplaceability, the effect differs strongly among countries. In many countries, although irreplaceability decreases turnover intentions, this effect is significant in only a few countries; moreover, in many countries, irreplaceability and turnover intentions seem unrelated; and in Canada, irreplaceability appears to rather increase turnover intentions (although not significantly). Since a lot of variation exists between countries and also a lot of uncertainty (indicated by the confidence intervals), larger samples would be necessary to achieve more certain conclusions. This goal can be achieved by pooling, although pooling the data makes sense only when the effects in the various countries are similar. In Western Europe and Australia, this is the case, and we can see that in these two regions, feeling irreplaceable significantly reduces turnover intentions. However, the evidence for Hypothesis 4 is weak, since it could be confirmed only in some countries and two of the regions. Therefore, even though the perception of irreplaceability decreases turnover intentions in some countries, the effect does not seem to be universal, since it cannot be found in every country.

The results from Model 3 show the interaction effects of employability and irreplaceability and job insecurity on turnover intentions so to analyze whether employability and irreplaceability buffer the negative effect of job insecurity on turnover intentions (Figure 3). Again, the predicted linear effects and the 95% confidence intervals are displayed.

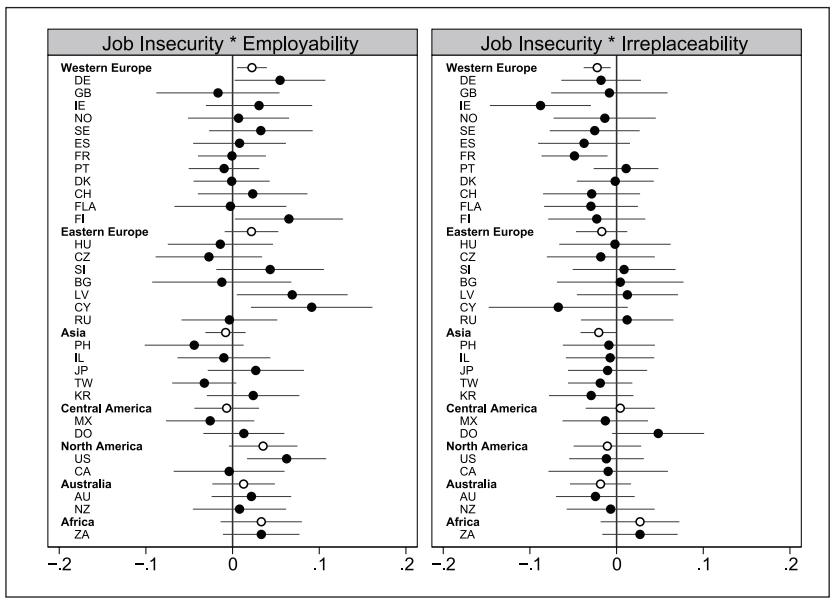

Figure 3. The moderating effects of employability and irreplaceability on turnover intentions.
Source: ISSP 2005; estimations from Model 3.
Note: Predicted linear effects on turnover intention and 95% confidence intervals.

We found a lot of variation among the included countries of our study with respect to the two moderators – employability and irreplaceability – and thus, we were not able to draw a general conclusion concerning our hypotheses. The interaction terms were not significant in most countries. We found some support for Hypothesis 3b. The perception of employability significantly increased the effect of job insecurity on turnover intentions in Germany, the USA, Latvia, Cyprus, and Finland, which represent five of the 31 analyzed countries. The effects for all other countries were not significant in either direction.

Pooling the data in regions would not make sense in this case since the effects within the regions vary quite strongly and also point in opposite directions. However, no statistically significant evidence exists to support the hypothesis that the interaction effect could go in the other direction. Five countries were identified in which employability significantly increased the effects of job insecurity on turnover intentions, but not a single one was found in which employability significantly decreased the effects of job insecurity on turnover intentions. Therefore, it seems unlikely that Hypothesis 3a would be true. However, to answer our question – Does employability increase or decrease the effects of job insecurity? – we don't know for sure. In some countries, it seems to increase the effect, but that effect is neither strong nor universal.

The estimations for the interaction effect of job insecurity and the perception of irreplaceability also show a lot of variation and a lot of uncertainty (indicated by the large confidence intervals). For example, in Ireland and France, we found statistically significant support for Hypothesis 5b. In these countries, the perception of irreplaceability decreases the effect of job insecurity on turnover intentions. However, a clear conclusion cannot be drawn.

Since the effects for the countries point in opposite directions in most regions, pooling the data in regions would not make much sense.

In summary, the moderating effects of employability and irreplaceability vary considerably across national contexts.

Discussion and conclusion

The present study adds to current knowledge by investigating the effects of job insecurity, employability, and irreplaceability on turnover intentions. Additionally, we analyzed the impact of employability and irreplaceability on the relationship between job insecurity and turnover intentions. We examined whether these effects were universal or varied among the countries included in our study.

We can show that in most countries included in our study, job insecurity increases turnover intentions, which confirms the results from previous studies (Berntson et al., 2010; Furaker and Berglund, 2014; Sverke and Goslinga, 2003; and for meta-analysis results, see Cheng and Chan, 2008; Sverke et al., 2002) and shows that this connection is quite universal. Since turnover intentions are a strong predictor for actual turnover (Allen et al., 2005), our results suggest that job insecurity induces 'excess worker turnover' (Centeno and Novo, 2012: 321) initiated by employees, which means both sides change partner, but not labor market state – the employee keeps working, and the company maintains the same employment level. Since firm-specific human capital is lost when

employees change their employer, this phenomenon seems damaging for both sides, and ultimately should reduce productivity at the macro level.

In most countries, employees who are employable are more inclined to look actively for another job, which suggests that this main effect of employability on turnover intentions – that has been found in previous studies (e.g., Berntson et al., 2010) – seems to be rather universal.

The implications of these findings are far-reaching since they raise questions about whether employability can be a replacement for job security. This argument, put forward and promoted by policy makers, suggests that job security and employability are substitutes: if job security is reduced and employability is increased, the outcome remains the same. In many contexts, this has been proven to be possible – at least to some degree. Increasing employability can counteract the negative effects of decreasing job security, for example, on mental health (Green, 2011), psychological distress (Silla et al., 2009), and burnout (Aybas et al., 2015), since the main effects of job insecurity and employability pull in opposite directions. However, with respect to turnover intentions, this is not the case. Both a reduction in job security and a rise in employability increase turnover intentions. This finding indicates that in a 'flexicure' labor market – promoted by the European Commission (2007) – in which job security is low and employability is high, a considerable potential impact exists for companies who may be experiencing especially high turnover rates.

The assumption concerning the interaction effect between employability and job insecurity – if employability is high enough, the effect of job insecurity is minimized or may disappear completely – is even stronger than the assumption about counteracting main effects. These buffer effects have been observed with respect to various outcomes other than turnover intentions (Aybas et al., 2015; Green, 2011; Silla et al., 2009).

Regarding turnover intention, a reinforcing interaction effect (rather than a buffer effect) has been observed by a previous study (Berntson et al., 2010). This study found that employability increased the effect of job insecurity on turnover intentions. In our study, however, the interaction effect varied greatly among the countries we included, which leads us conclude that the interaction effect was not very strong or generalizable to all national contexts.

Feeling irreplaceable decreased turnover intentions in some countries, which indicates that companies may be able to increase stability by increasing their employees' company-specific human capital, although this main effect could not be established universally.

The results concerning the interaction effect were uncertain in our study. We did not find any strong evidence that irreplaceability increases or decreases the effect of insecurity on turnover intentions. Therefore, we do not know whether employees who feel irreplaceable have a stronger or weaker reaction to an increase in perceived job insecurity.

In our study, both interaction effects varied considerably. One possible explanation is that since we have identified two possible mechanisms that point in opposite directions (one predicting a positive and the other a negative interaction effect), both mechanisms might be true. Depending on which mechanism is stronger, the interaction effect could go either way.

A possible approach for further research to disentangle these effects would be to distinguish between different origins of perceived job insecurity. If these feelings are induced by the employer's use of fixed-term contracts or ambiguous signals, people who feel irreplaceable and have accumulated organization-specific skills or have high employability and feel very valuable might perceive the job insecurity resulting from these employers' strategies as especially unfair, and thus would react with increased turnover intentions. However, if perceived job insecurity is caused by an external threat for which the organization is not responsible (e.g., a problematic financial situation, difficult economic circumstances, drop in demand, high unemployment rate), it can be assumed that when an organization helps an employee to feel valuable, she/he will be even more loyal to the organization as a way to fulfill the informal psychological contract. In this situation, employable employees might also react less strongly to an increase in perceived job insecurity, since their psychological contract was not violated, and they can afford to wait.

In addition, we found considerable country variations with respect to the effects of job insecurity, employability, and irreplaceability. Further research should investigate the causes of these differences across countries. It would be especially interesting to investigate the potential links between the effect sizes and employment protection legislation (EPL) and unemployment rates. Indications exist that EPL strongly influences the turnover intentions of employees who are not satisfied with their job (Gielen and Tatsiramos, 2012). Therefore, EPL also may affect the turnover intentions of employees who are faced with job insecurity. The unemployment rate should make a difference since the effect of job insecurity on turnover intentions can be expected to differ, depending on whether job insecurity is induced by a company and attractive, more secure alternatives exist; or whether the job insecurity is related to an insecure labor market situation. Therefore it would be interesting to evaluate the influence of these macro variables on the effects of job insecurity, employability, and irreplaceability in further research.

Our study has some limitations. First, the effects we found cannot be interpreted as causal effects due to the methodological limitations of the cross-sectional design. Thus, it would be desirable to employ a longitudinal design. Second, unfortunately, we also were not able to use multi-item measures for our independent and dependent variables, which would have made our measurements more exact. Although a more exact measurement might possibly help to uncover significant interaction effects, this seems rather unlikely considering the effects we found pointed in opposite directions.

Acknowledgements

We would like to thank Christof Wolf for his helpful comments and suggestions on previous versions of the manuscript. Furthermore, we would like to thank the anonymous reviewers for their constructive criticism, which helped to improve and clarify our work.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. For more information, see http://www.issp.org/.
2. The correlations between the three variables were very low. For example, the correlation between *irreplaceability* and *job insecurity* was –.09, and the correlation between *employability* and *job insecurity* was –.04. The correlation between *employability* and *irreplaceability* was –.01.
3. We decided against using a multilevel model with random slopes. Even though it offers the advantage of empirically testing whether coefficients vary across countries in our sample, the huge disadvantage is that information is very compressed, and the variation in coefficients is difficult to grasp (Bowers and Drake, 2005; Bryan and Jenkins, 2016: 20).

References

Acikgoz Y, Sumer HC and Sumer N (2016) Do employees leave just because they can? Examining the perceived employability–turnover intentions relationship. *The Journal of Psychology* 150(5): 666–683.

Allen DG, Weeks KP and Moffitt KR (2005) Turnover intentions and voluntary turnover: The moderating roles of self-monitoring, locus of control, proactive personality, and risk aversion. *The Journal of Applied Psychology* 90(5): 980–990.

Allison PD (2001) *Missing Data*. Thousand Oaks, CA: Sage.

Anderson CJ and Pontusson J (2007) Workers, worries and welfare states: Social protection and job insecurity in 15 OECD countries. *European Journal of Political Research* 46(2): 211–235.

Aybas M, Elmas S and Dündar G (2015) Job insecurity and burnout: The moderating role of employability. *European Journal of Business and Management* 7(9): 195–202.

Berntson E, Näswall K and Sverke M (2010) The moderating role of employability in the association between job insecurity and exit, voice, loyalty and neglect. *Economic and Industrial Democracy* 31(2): 215–230.

Borg I and Elizur D (1992) Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower* 13(2): 13–26.

Bowers J and Drake KW (2005) EDA for HLM: Visualization when probabilistic inference fails. *Political Analysis* 13(4): 301–326.

Bryan ML and Jenkins SP (2016) Multilevel modelling of country effects: A cautionary tale. *European Sociological Review* 32(1): 3–22

Buffel V, Dereuddre R and Bracke P (2015) Medicalization of the uncertainty? An empirical study of the relationships between unemployment or job insecurity, professional care seeking, and the consumption of antidepressants. *European Sociological Review* 31(4): 446–459.

Centeno M and Novo ÁA (2012) Excess worker turnover and fixed-term contracts: Causal evidence in a two-tier system. *Labour Economics* 19(3): 320–328.

Cheng GH-L and Chan DK-S (2008) Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology* 57(2): 272–303.

Cheng T, Mauno S and Lee C (2014) The buffering effect of coping strategies in the relationship between job insecurity and employee well-being. *Economic and Industrial Democracy* 35(1): 71–94.

Chirumbolo A and Areni A (2010) Job insecurity influence on job performance and mental health: Testing the moderating effect of the need for closure. *Economic and Industrial Democracy* 31(2): 195–214.

Clark AE (2001) What really matters in a job? Hedonic measurement using quit data. *Labour Economics* 8(2): 223–242.

Dawson C, Veliziotis M and Hopkins B (2017) Temporary employment, job satisfaction and subjective well-being. *Economic and Industrial Democracy* 38(1): 69–98.

De Cuyper N and De Witte H (2007) Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behaviour. *Work and Stress* 21(1): 65–84.

De Cuyper N and De Witte H (2008) Job insecurity and employability among temporary workers: A theoretical approach based on the psychological contract. In: Näswall K, Hellgren J and Sverke M (eds) *The Individual in the Changing Working Life*. Cambridge: Cambridge University Press, pp. 88–107.

De Cuyper N, Bernhard-Oettel C, Berntson E et al. (2008) Employability and employees' well-being: Mediation by job insecurity. *Applied Psychology* 57(3): 488–509.

De Witte H (1999) Job insecurity and psychological wellbeing: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology* 8(2): 155–177.

Dickerson A and Green F (2012) Fears and realisations of employment insecurity. *Labour Economics* 19(2): 198–210.

Eichhorst W and Marx P (2011) Reforming German labour market institutions: A dual path to flexibility. *Journal of European Social Policy* 21(1): 73–87.

European Commission (2007) *Towards Common Principles of Flexicurity: More and Better Jobs Through Flexibility and Security*. Luxembourg: Office for Official Publications of the European Communities.

Fugate M, Kinicki AJ and Ashforth BE (2004) Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior* 65(1): 14–38.

Furaker B and Berglund T (2014) Job insecurity and organizational commitment. *Revista Internacional de Organizaciones* 13: 163–186.

Ganster DC and Murphy LR (2000) Workplace interventions to prevent stress-related illness: Lessons from research and practice. In: Cooper CL and Locke EA (eds) *I/O Psychology: What We Know about Theory and Practice*. Oxford: Basil Blackwell, pp. 34–51.

Gaure S, Røed K and Westlie L (2012) Job search incentives and job match quality. *Labour Economics* 19(3): 438–450.

Gielen AC and Tatsiramos K (2012) Quit behavior and the role of job protection. *Labour Economics* 19(4): 624–632.

Green F (2011) Unpacking the misery multiplier: How employability modifies the impacts of unemployment and job insecurity on life satisfaction and mental health. *Journal of Health Economics* 30(2): 265–276.

Greenhalgh L and Rosenblatt Z (1984) Job insecurity: Toward conceptual clarity. *The Academy of Management Review* 9(3): 438–448.

Hancock JI, Allen DG, Bosco FA et al. (2013) Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management* 39(3): 573–603.

Hirschman AO (1970) *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge, MA: Harvard University Press.

ISSP (2013) International Social Survey Programme: Work Orientation III – ISSP 2005. GESIS Data Archive, Cologne. ZA4350 Data file Version 2.0.0, doi:10.4232/1.11648.

Kahn LM (2012) Temporary jobs and job search effort in Europe. *Labour Economics* 19(1): 113–128.

Kalleberg A (2000) Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology* 26: 341–365.

Kalleberg A (2003) Flexible firms and labor market segmentation: Effects of workplace restructuring on jobs and workers. *Work and Occupations* 30(2): 154–175.
Kroneberg C and Kalter F (2012) Rational choice theory and empirical research: Methodological and theoretical contributions in Europe. *Annual Review of Sociology* 38: 73–92.
Lazarus RS and Folkman S (1984) *Stress, Appraisal, and Coping*. New York: Springer.
Lozza E, Libreri C and Bosio AC (2013) Temporary employment, job insecurity and their extraorganizational outcomes. *Economic and Industrial Democracy* 34(1): 89–105.
Mood C (2010) Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review* 26(1): 67–82.
Näswall K and De Witte H (2003) Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy* 24(2): 189–215.
Porter LW, Steers RM, Mowday RT et al. (1974) Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology* 59(5): 603–609.
Rousseau D (1995) *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*. Thousand Oaks, CA: Sage.
Silla I, De Cuyper N, Gracia FJ et al. (2009) Job insecurity and well-being: Moderation by employability. *Journal of Happiness Studies* 10(6): 739–751.
Silver BJ (2003) *Forces of Labor: Workers' Movements and Globalization since 1870*. New York: Cambridge University Press.
Sousa-Poza A and Sousa-Poza AA (2007) The effect of job satisfaction on labor turnover by gender: An analysis for Switzerland. *The Journal of Socio-Economics* 36(6): 895–913.
Spurk D, Kauffeld S, Meinecke AL et al. (2016) Why do adaptable people feel less insecure? Indirect effects of career adaptability on job and career insecurity via two types of perceived marketability. *Journal of Career Assessment* 24(2): 289–306.
Sverke M and Goslinga S (2003) The consequences of job insecurity for employers and unions: Exit, voice and loyalty. *Economic and Industrial Democracy* 24(2): 241–270.
Sverke M, Hellgren J and Näswall K (2002) No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology* 7(3): 242–264.
Wilthagen T and Tros F (2003) Dealing with the 'flexibility-security-nexus': Institutions, strategies, opportunities and barriers. Working Paper 9. Amsterdam Institute for Advanced Labour Studies, University of Amsterdam.
Zeytinoglu IU, Yılmaz G, Keser A et al. (2013) Job satisfaction, flexible employment and job security among Turkish service sector workers. *Economic and Industrial Democracy* 34(1): 123–144.

Author biographies

Anne Balz is a researcher at the German Microdata Lab at GESIS-Leibniz Institute for the Social Sciences. Her current research focuses on social inequality, especially concerning job insecurity and its consequences. Her work has recently been published in the *European Sociological Review*.

Karin Schuller is a researcher at the Max-Planck-Institute for Social Law and Social Policy. Her research interests focus on job strain and its impact, especially on health inequality. Other research interests include ethnic inequality and survey methodology. Her work has recently been published in the *British Journal of Sociology of Education*.