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Psychological Safety as a Potential Predictor of Turnover Intention

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Abstract

Voluntary employee turnover is a large cost factor for organizations. This fact justifies the research, development, and deployment of effective interventions. About four dozen predictors of voluntary employee turnover have been studied so far, but the construct of psychological safety has largely been ignored as a potential predictor of turnover in prior research of voluntary employee turnover. In this cross-sectional study, a multiple linear regression model is tested in which voluntary turnover intention is predicted by psychological safety alongside eleven strategically selected and already well-established predictors of turnover. This study is based on a sample of $N = 223$ workers from Denmark and Sweden. The multiple regression analysis shows that psychological safety is a significant, as well as sizeable, predictor of turnover intention alongside several of the other predictors. This finding suggests that more investigation of the psychological safety construct in the context of employee turnover research is warranted.

Keywords: Psychological safety, turnover intention, employee retention, job satisfaction

Psychological Safety as a Potential Predictor of Turnover Intention

The primary aim of this thesis is to explore whether the construct of psychological safety may be useful as a predictor for turnover intention, since psychological safety has received very little attention in the context of employee turnover research so far. The secondary goal is to explore how psychological safety performs as a predictor of turnover intention in direct comparison with several other strategically selected and already well-established predictors of turnover. Specifically, psychological safety is compared to the already established predictors of job satisfaction, employee engagement, organizational fit, organizational climate, transformational leadership, organizational commitment, job embeddedness, opportunities, stress and exhaustion, job search, and job security.

The results of this study could expand existing empirical research with a better understanding of to the role psychological safety may play for employee turnover intention. Moreover, the findings of this research may also be of practical use for employers in their planning of comprehensive or targeted employee retention strategies in order to cut down on financial costs while also preventing the numerous other negative effects which are associated with voluntary employee turnover (Surji, 2013).

Voluntary Turnover: A Costly Affair

In today's global economy, retaining skilled and valuable employees is an issue of critical importance for organizations. The average annual voluntary turnover rate across different occupational sectors and across several countries like the United States, Australia, and New Zealand lies at roughly 20% but has been continuously on the rise throughout the last decade (Cascio, 2006). The average total cost to an organization associated with an employee quitting their job has been estimated to lie between 90% and 200% of the annual salary for the position that needs to be filled anew (Cascio, 2015). Additionally, specific employees in key positions who show very high performance or possess exceptional or difficult to acquire skillsets can be much harder to find and even more costly to replace, resulting in steep opportunity costs if no timely replacement can be found (Mitchell, Holtom, & Lee, 2001).

The estimated "true costs" of turnover include tangible direct costs, as well as indirect costs, which are not as easy to quantify and can only be roughly estimated. Direct costs typically contain leaving costs, searching costs, hiring costs, and training costs. Indirect costs attempt to estimate losses to the organization due to numerous "side-effects" of voluntary turnover (Allen, Bryant, & Vardaman, 2010). Examples of such side-effects are lowered

productivity due to absence (Mitchell et al., 2001), lower morale and performance in a remaining work team (Mitchell et al., 2001), severed relationships with clients (Mitchell et al., 2001), and the so-called "turnover contagion effect", which describes the phenomenon that other employees often quit as a direct result of their colleagues leaving the company (Mitchell, Hekman, Lee, Holtom, & Harman, 2009). Considering the prevalence and cost of voluntary turnover, organizations of all sizes find themselves increasingly prompted to adopt a coherent employee retention strategy to save costs and retain vital knowledge and talent in their own ranks.

Prior Research on Employee Turnover

Scientific inquiry into the topic of employee turnover has a rich history stretching as far back as one hundred years (Hom, Lee, Shaw, & Hausknecht, 2017). Interest in turnover research slowly yet increasingly picked up speed since the 1950's with the advent of March and Simons' Process Model of Turnover (1958). Since then, about ten other influential models of turnover have been published and expanded our understanding of the complex dynamics that attempt to describe and explain what really goes on behind people's decision to leave their job. More recent influential models include the Unfolding Model of Voluntary Employee Turnover (Lee, Gerhart, Weller, & Trevor, 2008), and the Job Embeddedness Model (Mitchell, Holtom, Lee, & Erez, 2001). During the last decades of research, many antecedents of voluntary employee turnover have been successfully identified. A recent meta-analysis by Rubenstein, Eberly, Lee, and Mitchell (2018) evaluated 316 articles and featured the analysis of no fewer than 57 predictor variables, as well as their weighted average effect sizes regarding voluntary turnover outcomes. Based on the contents of this meta-analysis, as well as a previous one performed by Griffeth, Hom, & Gaertner (2000), it is fair to say, that the rough effect sizes of perhaps three-dozen predictors on employee turnover are well-established, since they have been corroborated across a multitude of studies by now. Nevertheless, several of the findings may still be surprising, such as the fact that received pay turns out to be a predictor with a rather modest effect size of just (r = -.17), compared to many other better predictors like organizational fit (r = -.29) and organizational commitment (r = -.29) (Rubenstein et al., 2018).

However, the scientific literature still shows gaps when it comes to the exploration of several rarely studied potential predictors. Psychological safety, in this regard, is not the only understudied potential predictor. Other examples include reward contingency (i.e., the *"Degree to which compensation is based on an individual's performance",* Rubenstein et al.,

2018, p. 30); or even newly conceived predictors such as coping (i.e., *"An individual's abilities to manage internal and external demands that are perceived as exceeding available resources"*, Rubenstein et al., 2018, p. 29).

The main conclusions based on a wider literature review of the accumulated scientific research can thus be briefly summarized as follows: 1) Employee turnover is usually a very costly affair; 2) Around three dozen variables have been established as significant predictors of turnover (though for some only a correlational relationship has been established as of yet); 3) There are currently around ten influential models of employee turnover, all of which partially but incompletely attempt to capture the links between several predictors and their effects on turnover, as well as each other; 4) There are still numerous gaps in our knowledge when it comes to the potential usefulness of several understudied variables as predictors of turnover, psychological safety being just one of them.

Different Constructs of Employee Turnover

The construct of employee turnover comes in several forms that should not be conflated. One distinction that can be made is internal versus external turnover (Ruby, 2002), which denominates if an employee leaves their job for another job within the same organization (internal), or if they leave in order to take on a job in another organization, or alternatively go unemployed (external).

Another important differentiation needs to be made when it comes to voluntary and involuntary turnover. Voluntary turnover means the decision to end the employment contract is made by the employee, rather than by the company. Involuntary turnover, on the other hand, is initiated by the organization and results in the unwilling departure of an employee, either due to dismissal because of economic redundancy, or due to personal issues such as negligence or being caught in an illegal act (Hom et al., 2017).

Measuring Turnover versus Turnover Intentions

One criticism of turnover research made both in the meta-analysis by Rubenstein et al. (2018), as well as in the century-long historical overview by Hom et al. (2017), is that a non-negligible number of papers fail to make a clear distinction whether they measure and discuss actual turnover, or turnover intention. Measuring actual turnover de facto requires the employee to leave, so measurements of actual turnover and its predictor variables are usually taken via interview or survey shortly after an employee hands in their letter of resignation. Alternatively, measurements of actual turnover can also be obtained in the context of a

longitudinal study, which can track who handed in their letter of resignation in an interval between two or more survey time-points.

On the other hand, turnover intentions, defined as *"the conscious and deliberate willfulness to leave the organization"* (Tett & Meyer, 1993, p. 262), are often easier to measure than actual turnover, since this can be accomplished by simply asking participants a variety of questions to gauge whether they are thinking of quitting their job in the foreseeable future. Turnover intentions, or sometimes also called withdrawal cognitions, have been widely recognized as the best surrogate measure for actual turnover (Steel & Ovalle, 1984; Hom & Griffeth, 1991). As a result, turnover intentions are regularly used as a proxy in turnover research, when data on actual turnover cannot be easily obtained for one reason or another (Jiang, Liu, McKay, Lee, & Mitchell, 2012). However, it is still important to clearly distinguish the two, since turnover intentions do not automatically lead to actual turnover.

Psychological Safety Construct

Psychological safety in a work context describes employees' beliefs and perceptions about the consequences which they anticipate as a result of taking interpersonal risks at their workplace or in their work team. Creating a psychologically safe work environment thus essentially means reducing real and perceived interpersonal risks. A typical example of taking an interpersonal risk is the anticipation of negative consequences as a result of speaking up at the workplace, for example by voicing a dissenting opinion in order to challenge the status quo or to improve organizational functioning (Grant & Ashford, 2008). Another way to characterize psychological safety could thus be described as the absence of a need to constantly feel "on guard" around other colleagues. The construct of psychological safety was first briefly explored in the 1960s and has enjoyed renewed interest since the beginning of the 1990s until the present day (Edmondson & Lei, 2014). Psychological safety has also been associated with numerous positive organizational outcomes, such as stimulating the sharing of knowledge within a company, which can often lead to "organizational learning" (Bunderson & Boumgarden, 2010), as well positive effects on organizational performance (Baer & Frese, 2003). Given the wealth of research on the positive effects of psychological safety at the workplace, it is surprising that this variable was not featured as a predictor in the comprehensive meta-analysis on voluntary turnover offered Rubenstein et al. (2018), even though the latter do briefly mention the pivotal role psychological safety plays for employee engagement according to a study by Crawford, Rich, Buckman, & Bergeron (2014). Moreover, psychological safety was also not included in the older but similarly large

meta-analysis performed by Griffeth et al. (2000). The omission of psychological safety in the two biggest meta-analyses of turnover made during the last two decades strongly indicates that there is a lack of research when it comes to the connection between psychological safety and voluntary employee turnover. My subsequent literature search confirmed, that studies which focus on this postulated connection are exceptionally rare with only a couple of notable exceptions to be found (Chandrasekaran & Mishra, 2012; Kirk-Brown & Van Dijk, 2016).

Findings of Prior Research

Chandrasekaran and Mishra (2012) did not primarily focus on the connection between psychological safety and turnover intention, but instead looked at the effect several factors (including psychological safety) had on project performance during the observation of 110 research & development project teams. In conducting this research, they found that the effect of psychological safety on project performance was mediated through team turnover, thus establishing this possible indirect connection between turnover and psychological safety.

Kirk-Brown and Van Dijk (2016) focused on the role of psychological safety in the relationship between job resources, affective commitment, and turnover intentions for Australian employees with chronic illness compared to a control group. They found that psychological safety mediated the relationship between job resources and affective commitment (which in turn had a significant effect on turnover intentions) for both groups, but more so for the chronically ill.

Scientific literature which explicitly investigated a possible direct effect of psychological safety on turnover or alternatively turnover intentions could not be found while conducting my literature review.

The Present Study

Study aims. This thesis aims to accomplish two main goals. First, since psychological safety has received very little attention as a potential predictor in the context of turnover research so far, I want to test whether the construct of psychological safety acts as a significant predictor variable of turnover intention. If so, this may hint at its potential usefulness as an additional new predictor for employee turnover in future research and practice.

Second, I want to examine how psychological safety measures up in direct comparison with other strategically selected turnover predictors in terms of their effect size

regarding a turnover intention outcome variable. In particular, I am interested in comparing psychological safety to those types of predictors, which 1) are already well-established in the literature and show high to moderate effect sizes on employee turnover, and 2) have the potential to be influenced by organizations.

My ultimate hope regarding the result of pursuing these research questions is twofold: If psychological safety turns out to have the potential to be another well-performing predictor of employee turnover, this thesis may be warrant and inspire more rigorous research into this presumed connection. The second reason for looking at how psychological safety measures up against other known well-performing predictors (specifically, those which can potentially be influenced by an organization), is that such a comparison can potentially inform the development, planning, and implementation of more advanced and efficient employee retention strategies within organizations, both for their own benefit and for the benefit of their employees.

Rationale behind focusing on turnover intention. External voluntary employee turnover intention was chosen as the sole outcome variable due to the following reasoning: This thesis is only concerned with external turnover, because in many cases employee turnover within the same organization is presumably beneficial to both employer and employee alike. Thus, there should be little practical or monetary incentive for most organizations to take an interest in the suppression of internal turnover. All questions for participants of the study were therefore phrased in a manner which ensured that external turnover intention is what was actually measured by the corresponding questions. Moreover, this study focused on voluntary rather than involuntary turnover, because the latter usually happens at the strategic digression of an organization and is bounded by applicable laws, which are designed to offer some measure of reasonable protection for both parties (Hom & Griffeth, 1995).

Measuring turnover intentions rather than actual turnover was primarily chosen for two practical reasons. First, obtaining data on actual turnover would have required access to more private information of employees, which would have compromised their anonymity. And second, it would have required the recruitment of one or ideally several rather big organizations willing to participate over a fairly long period, in order for enough time to pass during which actual turnover could be observed in sufficient numbers. Collecting data on actual turnover can easily take up two or three years (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Additionally, because turnover intentions are already widely recognized as by

far the best available proxy measures for actual turnover due to their high observed correlation of $r = .56$ (Rubenstein et al., 2018; Hom & Griffeth, 1991), the decision to measure turnover intention instead of actual turnover was ultimately made. In summary, when the term turnover intention is used in the context of this paper, it is always referring to external voluntary employee turnover intention.

For the selection of additional turnover intention predictors beyond psychological safety, the previously mentioned comprehensive meta-analyses by Rubenstein et al. (2018) and Griffeth et al. (2000) served as the primary sources for identifying potentially relevant predictors of turnover. This was done to ensure that all well-studied turnover predictor variables were taken into consideration regarding their potential inclusion in this study.

Hypotheses

To comprehensively answer the two previously discussed research questions, a multiple linear regression model is chosen as an appropriate method to investigate both questions at once. The first research question is whether psychological safety is a significant predictor variable for turnover intention. Take note, that the significance of a predictor variable is not to be equated with evidence for a direct causal relationship. When this question is investigated via the use of a multiple linear regression model, it results in the formulation of the following hypothesis:

> Psychological safety predicts turnover intention at a significance level of at least $\alpha = .05$ when included as a predictor variable in a multiple linear regression model including eleven other well-established turnover predictors.

The second research question is how psychological safety performs as a predictor variable of turnover intention in direct comparison with the mentioned eleven turnover predictors. This secondary research question is not formulated as a directed hypothesis because it is of a purely explorative nature and will be investigated by comparing the sizes of the standardized beta coefficients in the resulting multiple regression model.

METHOD

Study design

To answer both research questions in quantitative terms, a multiple linear regression model is used. The regression model features turnover intention as the dependent outcome

variable. Twelve independent variables (including psychological safety) served as the main predictor variables. Five additional demographic variables were included in the model as control variables. The outcome variable and each of the mentioned predictor variables were made up of one scale each, consisting of 63 items in total (See Appendix A for the full list). The five demographic control variables consisted of only one item each. Two additional demographic variables were asked to gain a better description of the sample but were not included in the regression model due to their nominal scale type. A cross-sectional study design with a single time point was chosen, and the data was collected via online questionnaire.

Ethics

In conducting this research, the Law for Ethics of Research Involving Humans (2003:460) was observed (Utbildningsdepartementet, 2003). In particular, this means that before starting the online survey, participants were made aware in writing that the collected data is anonymous, that no data capable of identifying them as individuals will be shared with their companies, that their participation is entirely voluntary, and that they can quit the survey at any time they wish. Since the study featured no potentially harmful questions nor any other personal risks, no information was communicated in this regard. The purpose of the study was not obfuscated for the participants, so there was no need for a debriefing. No reward for participation was offered. In addition, care was taken to ensure that all current GDPR standards were met by including all of the required contact data, and by including information about the purpose and usage of participants' data, as well as their rights. All of this information was provided on the first page of the survey, before the participants were asked any further questions (See Appendix B for full survey introductions).

Recruitment of Participants

Recruitment was done via sharing the survey link across a wide variety of Facebook and LinkedIn interest groups ranging from knitting over paintball to politics, in order to gain a sample that was as broad and representative as possible. Care was taken to include enough (presumably) male-oriented interest groups to counteract the known effect that males are on average less likely to participate in research surveys (Smith, 2008). The survey link was accompanied by an appeal for people's participation in an online survey about job satisfaction and turnover. The recruitment message also asked, that people who are interested in participating should be at least 16 years of age, and currently working part- or full-time in

either Denmark or in Sweden. These restrictions on participation were chosen to increase the cultural homogeneity of the sample in order to limit any effects of differences in culture. Participants should also be employed at the time of taking the test, as trying to remember how they felt at a previous job may have produced unreliable judgements.

Participant Sample

To determine an adequate sample size for this study, an a-priori power analysis for a linear multiple regression model was performed with G*Power 3.1. Since several turnover predictors with prior correlation effect sizes as low as $r = .20$ were included, the default medium effect size of Cohen's $f^2 = .15$ was lowered to $f^2 = .10$ in order to potentially also capture lower effect sizes. The common alpha level of $\alpha = .05$ and the default desired power of $1 - \beta = .80$ were chosen. Running the power calculation with these parameters resulted in a minimum sample size of 212 participants.

In total, there were 355 registered clicks on the survey link. Out of those, $N = 223$ (62.8%) participants completed the entire questionnaire before data collection was stopped. Screening this data for obvious errors did not reveal any cases which warranted exclusion. The survey also collected data about several demographic characteristics, since these were later used either as control variables in the model, or to gain a better description of the participant sample. The demographic variables were: Year of birth, how many years they worked for their company (i.e., tenure), gender, whether they live together with a partner or a spouse, how many children they live together with, what capacity they were employed in (full-time, part-time, etc.), and which job-type they occupied (IT, sales, etc.). The full demographic data of the participant sample is provided in Table 1. To ensure participants' anonymity they were only asked for their year of birth rather than their birth date, so only their approximate age is reported, which was calculated by subtracting their stated year of birth from the year the data was collected in. Gender participation was still moderately skewed towards women (69.1%). Most participants worked full-time (75.4%), and almost 91% worked at least 50% part-time. 41.2% did not place themselves in any of the 14 provided job type categories and chose the "other" option. Approximate age as well as tenure show a wide variety across all brackets, although approximate age only shows 13% of participants were 30 years old or younger.

Table 1

Sample Demographics

	N	*%*	*M*	*SD*	*Min*	*Max*
Approximate age (years)			42.42	11.04	19	71
30 or less	29	13.0				
31 to 40	75	33.6				
41 to 50	61	27.4				
51 or more	54	24.2				
Missing	4	1.8				
Tenure (years)			7.93	8.92	0	47
One	44	19.7				
Two	26	11.7				
Three	25	11.2				
Four	14	6.3				
Five to seven	37	16.6				
Eight to ten	22	9.9				
Eleven to twenty	34	15.3				
More than twenty	18	8.1				
Missing	3	1.3				
Gender						
Female	154	69.1				
Male	66	29.6				
Other	2	.9				
Missing	3	1.3				
Living with partner						
Yes	160	71.7				
No	56	25.1				
Missing	7	3.1				
N of children living in household			.90	1,10	0	4
None	120	53.8				
One	27	12.1				
Two	52	23.3				
Three	20	9.0				
Four	2	.9				
Missing	2	.9				
Capacity of employment						
Full-time	166	74.4				
Part-time (50% or more)	37	16.6				
Part-time (less than 50%)	3	1.3				
Temporary employment	7	3.1				
Internship	1	.4				
Graduate program	2	.9				

Freelance	2	.9
PhD / research job	2	.9
Missing	3	1.3
Type of job		
Accounting & finance	8	3.6
Administration	9	4.0
Business & strategy	5	2.2
Creative & design	4	1.8
Education & training	22	9.9
Engineering & technology	14	6.3
Human resources	9	4.0
IT/Software	7	3.1
Legal	1	.4
Marketing & communication	4	1.8
Operations	11	4.9
Production worker	13	5.8
Sales & client care	17	7.6
Supply	1	.4
Other	93	41.7
Missing	5	2.2

Note. *N* = frequency, *%* = percentage of total including missing, *M* = arithmetic mean, *SD* = standard deviation, *Min* = minimum, *Max* = maximum.

Questionnaire Construction: Items and Scales

Rather than developing new item scales, all constructs were measured by making use of already existing and previously validated scales. Due to the large number of items in some of the original scales, several of the scales used in this study needed to be shortened. I judged this to be necessary in order to keep the time needed for finishing the survey at roughly 15 to 20 minutes. This was done because there is ample research showing that the quality of obtained data, as well as the drop-out rate, start to exponentially worsen beyond that survey length (Kuckartz, Ebert, Rädiker, & Stefer, 2009). It was also shown, that this effect is even more pronounced in online surveys, where having to answer too many items will quickly increase fatigue in participants and endanger both reliability and validity even more than it does in pen-and-paper surveys (Dillmann, 2006; Dillmann & Smyth, 2007). If a scale was shortened, then the criteria used to decide which items should be retained were a combination of available internal consistency scores (preferring to keep items which maintained the a-priori internal consistency), as well as preferring items which seemed to have good face validity based on my own understanding of the construct.

All of the scales used to measure the predictors, except for the stress and exhaustion scale, were phrased as statements with seven possible answers along a 7-point Likert-scale consisting of the options: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) neutral (5) somewhat agree, (6) agree, and (7) strongly agree. In all cases, the original scales were also either 5- or 7-point Likert-scales. However, to ensure consistency for participants, the 7-point Likert-scale detailed above was adopted throughout all of the scales in the survey. The stress and exhaustion scale was the only exception in this regard, since it consisted of several questions asking how frequently participants had feelings or symptoms of stress and exhaustion. The answer options for this scale were: (1) "All the time", (2) "A large part of the time", (3) "Part of the time" (4) "A small part of the time", or (5) "Not at all".

The entire survey was made available in both English and Swedish. Instructions and items were translated into Swedish by a native speaker studying their M.Sc. in psychology and then corroborated by two more native speakers, namely another M.Sc. psychology student, as well as my thesis supervisor. A complete table of all questions and items in both languages is included in the appendix (see Appendix A).

Selection of Turnover Intention Predictors

From the pool of 57 variables which were evaluated in the meta-analysis by Rubenstein et al. (2018), a selection of turnover predictors was made according to five criteria: First, in order to increase the potential usefulness of the practical implications the final model may provide, mainly those variables which a company could reasonably expect to influence with changes or interventions were included. Second, predictors which would have likely resulted in gathering data of low validity or reliability were excluded (e.g., asking employees questions about their own performance). Third, predictors which were more likely to be a result, or a side-effect, rather than the cause of an employee's turnover intention were excluded (e.g., absenteeism). Fourth, predictors based on less than 10 studies were excluded (Coping (7) and Reward Continency (4)). Fifth, only predictors which showed a higher correlation than $r = .20$ with turnover in the meta-analysis were included in order to end up with a questionnaire as well as a regression model of manageable size, while simultaneously trying to cover all of the most influential predictors. Accordingly, eleven other turnover predictors fulfilled these criteria and were selected to be included in the survey. These were: job satisfaction, employee engagement, organizational fit, organizational climate, leadership, organizational commitment, job embeddedness, opportunities, stress and exhaustion, job search, and job security. Except for the two scales stress and exhaustion and job search, the

other nine are all expected to act as suppressants regarding turnover intention based on prior research. Psychological safety was adopted as the twelfth major predictor variable.

Measured Constructs and their Corresponding Scales

Turnover intention. Turnover intention is the only dependent variable of interest used as the outcome variable in the multiple linear regression model. It was calculated by using the mean scores of three questions taken from the Michigan Organizational Assessment Questionnaire (Cammann, 1979): "I often think of leaving the organization", "It is very possible that I will look for a new job next year", and "If I may choose again, I will choose to work for the current organization", (α = .88, 7-point Likert-scale).

Psychological safety. To measure the construct of psychological safety, all six items from Baer and Frese's (2003) psychological safety scale were used to calculate a mean score (e.g., "When someone in our company makes a mistake, it is often held against them", α = .80, 7-point Likert-scale). Note that this scale is a slightly adapted version of the original psychological safety scale created by Edmondson (1999), which asks identical questions about perceived psychological safety but addresses them towards feelings of psychological safety in smaller work teams rather than in entire companies.

Job satisfaction. Job satisfaction indicates how an employee cognitively and affectively evaluates their overall work experience. Five items from a questionnaire by Brayfield (1951) were used to measure employees' level of job satisfaction (e.g., "Most days I am enthusiastic about my work", α = .88; 7-point Likert-scale).

Employee engagement. Employee engagement is defined as an employee's depth of involvement *with*, as well as commitment *to* their work. Eight items were selected from the employee engagement scale found in "The measurement of work engagement with a short questionnaire: A cross-national study" (Schaufeli, Bakker, & Salanova, 2006, α = .90, 7-point Likert-scale).

Organizational fit. Organizational fit is a concept that describes how compatible employees think they are with their organization and their job in terms of values, culture, skills and interests. Cable and DeRue (2002) have shown that a parsimonious measure of "global" organizational fit can be obtained with a scale consisting of just three items, so all three of these items were used to form the organizational fit scale in this study (e.g., "My personal values match my organization's values and culture", α = .67, 7-point Likert-scale).

Organizational climate. Organizational or corporate climate can be described as employees' collective perception and appraisal of their work environment and its psychological impact on them. Eight items from the CLIOR Scale (Pena-Suarez et al., 2013) were selected and used to measure this construct (e.g., "The atmosphere is impersonal", α = .88, 7-point Likert-scale).

Transformational leadership. When it comes to leadership, research differentiates between several leadership styles, such as charismatic leadership, servant leadership, transactional leadership, and transformational leadership. The transformational leadership style is widely regarded as the ideal leadership style due to its ability to both inspire as well as motivate people intrinsically towards achieving a higher performance via providing them with a compelling vision, high expectations, individualized support, agreed upon group goals, and by leaders acting as appropriate role models (Yukl, 2010). To measure perceived leadership quality, all six items from the transformational leadership behavior scale created by Podsakoff, MacKenzie, Moorman, and Fetter (1990) were used (e.g., "My supervisor behaves in a manner thoughtful of my personal needs", α = .91, 7-point Likert-scale).

In case participants did not have a direct supervisor or were a supervisor themselves, they were instructed to think of the supervisor within their organization whom they know best, or alternatively of the person closest in rank to them, when answering the questions.

Organizational commitment. The construct of organizational commitment describes an employee's psychological attachment to their organization. Organizational commitment was measured using five items taken from the original scale created by Allen and Meyer (1990, e.g., "I really feel as if this company's problems are my own", α = .82, 7-point Likert-scale).

Job embeddedness. Job embeddedness is a construct that is *"composed of contextual and perceptual forces that bind people to the location, people, and issues at work"* (Crossley, Bennet, Jex, and Burnfield, 2006). Simply put, job embeddedness focuses on factors that tend to keep an employee tied to and working at their job. However, since this study is interested mainly in predictors that are influenceable by an organization, rather than factors beyond an organization's control, a job embeddedness scale which excludes "off-the-job" factors (like an employee's perceived need to stay in the local area due to personal relationships), was chosen. Specifically, four items from the global job embeddedness scale put forward by Crossley et al. (2006) were selected (e.g., "I feel tied to this organization", α = .81, 7-point Likert-scale).

Job opportunities. Job opportunities describe an employee's perceived possibilities for skill growth and career advancement within their own organization in both quantitative and qualitative terms. High values on this scale indicate a high quality or quantity of perceived developmental opportunities. Four items from a scale created by Kraimer, Seibert, Wayne, Liden, and Bravo (2011) were used to measure this construct (e.g., "There are career opportunities within my company that are attractive to me", α = .86, 7-point Likert-scale).

Stress and exhaustion. In order to measure the frequency and severity of stress end exhaustion experienced by employees, four questions taken from the third Copenhagen Psychosocial Questionnaire (COPSOQ III) were used (e.g., "How often have you been emotionally exhausted?", α = .91, 5-point scale ranging from "not at all" to "all the time").

Job search. Job search consists of behaviors and thoughts which are connected to looking for a job outside of the current organization. This construct was measured via three questions originally used by Mowday, Koberg, and MacArthur (1984) (e.g., "It is unlikely that I will actively look for a different organization to work for in the next year", α = .80, 7-point Likert-scale).

Job security. Job security describes an employee's perception of how likely they think they might lose their job without being offered an alternative position within the same organization. Job security was assessed by four questions based on the original scale by Oldham, Kulik, Ambrose, and Stepina (1986) (e.g., "If this organization were facing economic problems, my job would be the first to go", α = .78, 7-point Likert-scale).

Item polarity. In order to properly form all of the scales, the polarity of each item which made up a scale was selected in such a way, that each scale can always be interpreted in terms of larger values indicating a higher frequency, presence or occurrence of the measured construct.

Data Collection and Data Analysis

The survey was constructed as well as conducted via the online survey tool Sunet Survey (https://www.sunet.se/). The a-priori power analysis to determine an adequate sample size was performed in G*Power 3.1. All other analyses as well as the multiple imputation were calculated using SPSS Statistics 22 by IBM. A standard p-value of p = .05 was adopted as the benchmark for significance in the correlation and regression analyses.

Results

Missing Data

Among the non-demographic data there were only 17 missing item responses in total (0.1% of all non-demographic items). Furthermore, only 14 participants did not answer all of the demographic questions. To test whether the non-demographic item responses are missing completely at random, Little's MCAR test was used. The test showed a significant result (χ^2 = 781.389, DF = 699, p = .016), indicating that the data may not be missing completely at random. When inspecting the items in question it seemed unlikely, that the data values are missing due to asking for any sort of sensitive data. This is suggesting that while the data may not be missing completely at random (MCAR), it is most likely missing at random (MAR). Thus, simply deleting these cases would not only be wasteful but might also bias the data analyses (due to presumably being MAR rather than MCAR). Choosing an adequate method of imputation was therefore the best option to generate realistic replacement values. For the purpose of calculating the multiple linear regression model, the missing non-demographic data was imputed by using five iterations of the multiple imputation method in SPSS, which were then used as the basis for calculating the mean values for the parameters. Missing demographic data was not imputed, since the demographic variables were only included as control variables in the regression model.

Outliers

No potentially erroneous univariate outliers were detected in the data set. Examination of Cook's Distance for each case (including only the non-demographic data) yielded twelve multivariate outliers in total according to the 4/n cut-off criterion (Navarro, 2019), which in this case equals values above .018. One case had an extreme value of Cook's D = .147. Two more Cook's D scores were below .038., while the remaining nine were all below .030. On closer inspection of these outlier cases however, there seemed to be no valid reason for excluding them from the analyses.

Preliminary Analyses

Table 2 features the location and distribution parameters for each scale of the main variables. Turnover intention shows an arithmetic mean close to the middle of the 7-point-Likert-scale and a relatively high standard deviation (M = 3.65, SD = 1.94) with a skew of .16 and a high negative kurtosis of -1.20. The ten predictors which were presumed to act as suppressants regarding turnover intention all show an arithmetic mean above M = 3.50 for

their respective scales. Three of them scored above $M = 4.00$ and five of them scored above $M = 5.00$. Examination of their arithmetic mean and skew statistic show that, except for job embeddedness, all of them have a distribution that is skewed towards higher values. The internal consistency score for each scale, as well as the change in scale reliability for each item if it were excluded from the scale can be seen in Appendix A.

Table 2

Scale Statistics

	Scale	*M*	*SD*	Skew	Kurtosis
Turnover Intention	1 - 7	3.65	1.94	.16	-1.20
Psychological Safety	1 - 7	4.93	1.26	-.85	.35
Job Satisfaction	1 - 7	5.21	1.40	-.96	.02
Employee Engagement	1 - 7	5.16	1.24	-.83	.27
Organizational Fit	1 - 7	5.24	1.22	-.88	.25
Organizational Climate	1 - 7	5.20	1.29	-.87	.08
Transformational Leadership	1 - 7	4.56	1.59	-.62	-.53
Organizational Commitment	1 - 7	4.16	1.51	-.24	-.65
Job Embeddedness	1 - 7	3.64	1.53	.06	-.81
Job Opportunities	1 - 7	3.70	1.64	-.06	-.99
Stress and Exhaustion	1 - 5	2.93	1.20	.23	-1.17
Job Search	1 - 7	3.44	1.96	.27	-1.15
Job Security	1 - 7	5.37	1.40	-.80	.03

Note. *M* = arithmetic mean, *SD* = standard deviation, larger mean values indicate a higher occurrence of the construct.

Correlation Analysis

A complete correlation matrix between all non-demographic variables is provided in Table 3. Except for the construct of job security, which did not correlate significantly with any other variables apart from job satisfaction, employee engagement, organizational fit, and job search, all of the variables showed mostly large ($r > .50$, Cohen, 1988) and often moderate ($r > .30$, Cohen, 1988) correlations with each other at the $p < .01$ significance level. The only exception was the correlation between the stress and exhaustion scale and employee embeddedness, which showed a less than moderate significant correlation of $r = -.24$.

Excluding job security, turnover intention showed inverse correlations at the $p < .01$ level with all ten of the presumed protective predictors. These inverse correlations were ranging from $r = -.51$, in the case of transformational leadership, up to $r = -.71$ for the construct of job satisfaction. Psychological safety showed a significant negative correlation with turnover intention ($r = -.57$). Simultaneously, all of the presumed protective variables are also correlated negatively at the $p < .01$ level with Stress and Exhaustion (ranging from $r = -.24$ to $r = -.55$), and also with job search (ranging from $r = -.38$ to $r = -.59$). Overall, psychological safety shows a correlation profile that is very similar to that of all the other protective predictors of turnover intention and it correlates particularly highly with organizational climate ($r = .78$).

Regression Analysis

Test of multiple linear regression assumptions. For the results of a multiple regression analysis to be interpretable, it is important that the collected data meets several assumptions, all of which need to be tested. If any of these assumptions are violated the resulting regression model may either suffer in quality or in even become uninterpretable, depending on which and by how much these assumptions are violated. All of the following assumptions were tested: Linearity, homoscedasticity, normality of residuals, non-multicollinearity, and the independence of errors.

The linearity assumption postulates that the relationships between the outcome variable and its predictors are linear, which was visually confirmed by checking the twelve Q-Q plots. Homoscedasticity of the data was confirmed via scatterplots, which plotted the standardized residuals against the predicted values. The normality of residuals was also confirmed by visual inspection of Q-Q plots. The non-multicollinearity assumption of predictors was confirmed by the SPSS output via included collinearity diagnostics, where none of the variables showed a Variance Inflation Factor (VIF-value) above 10. Finally, the regression model was successfully checked for independent errors (Durbin-Watson value = 2.33). In summary, all of the necessary assumptions for properly interpreting a multiple regression model were confirmed.

Table 3

Correlation Matrix of Main Variables

Measure	TOI	PSYS	JSAT	EENG	OFIT	CLIM	LEAD	OCOM	EMBD	OPP	STSS	JSER	JSEC
Turnover Intention	1.00												
Psychological Safety	-.57**	1.00											
Job Satisfaction	-.71**	.53**	1.00										
Employee Engagement	-.65**	.52**	.77**	1.00									
Organizational Fit	-.68**	.65**	.69**	.70**	1.00								
Organizational Climate	-.63**	.78**	.66**	.62**	.73**	1.00							
Transformation. Leadership	-.51**	.57**	.47**	.50**	.59**	.67**	1.00						
Organizational Commitment	-.67**	.51**	.62**	.63**	.63**	.56**	.45**	1.00					
Job Embeddedness	-.52**	.35**	.37**	.42**	.45**	.34**	.32**	.65**	1.00				
Job Opportunities	-.56**	.57**	.53**	.51**	.61**	.60**	.60**	.56**	.40**	1.00			
Stress and Exhaustion	.52**	-.46**	-.54**	-.45**	-.45**	-.55**	-.44**	-.35**	-.24**	-.43**	1.00		
Job Search	.81**	-.38**	-.59**	-.51**	-.51**	-.48**	-.38**	-.49**	-.43**	-.41**	.41**	1.00	
Job Security	-.10	.07	.16*	.15*	.15*	.07	.04	.10	.06	.05	-.03	-.14*	1,00

Note. * = $p < .05$, ** = $p < .01$.

Regression analysis results. The full regression model is reported in Table 4. As a whole, the model was a significant predictor of turnover intention and explained 82% of total variance in the outcome variable (R^2 = .82, F(12,210) = 55.88, p < .01). Psychological safety significantly predicted turnover intention (β = -.12, p = .023), as did organizational fit (β = -.11, p = .046), organizational commitment (β = -.19, p < .001), stress and exhaustion (β = .09, p = .030), and job search (β = .50, p < .001). The control variables approx. age (β = -.08, p = .046) and gender (β = -.13, p < .001) also acted as significant predictors of turnover intention. Job satisfaction, employee engagement, organizational climate, transformational leadership, job embeddedness, and job opportunities all did not significantly predict the turnover intention outcome and all of them featured p-values above p > .300. Job security was also not a significant predictor (β = .06, p = .060). Tenure, living together with a partner, and living together with a child did not significantly predict turnover intention, either.

Table 4

Regression Analysis including Standardized Beta Coefficients

Predictor	B	SE B	95% CI	*β*	*t*	*p*
Intercept	5.39	.64	[4.12, 6.66]		8.37	.000
Psychological Safety	-.18	.08	[-.34, -.03]	-.12*	-2.30	.023
Job Satisfaction	-.06	.09	[-.23, .10]	-.05	-.75	.453
Employee Engagement	-.08	.09	[-.26, .10]	-.05	-.91	.363
Organizational Fit	-.18	.09	[-.35, .00]	-.11*	-2.00	.046
Organizational Climate	.10	.10	[-.10, .30]	.07	1.01	.313
Transformation. Leadership	-.04	.05	[-.15, .06]	-.04	-.79	.430
Organizational Commitment	-.24	.07	[-.37, -.11]	-.19*	-3.71	.000
Job Embeddedness	-.04	.05	[-.15, .06]	-.04	-.86	.391
Job Opportunities	-.05	.05	[-.15, .05]	-.04	-1.02	.307
Stress and Exhaustion	.14	.06	[.01, .27]	.09*	2.19	.030
Job Search	.52	.04	[.44, .60]	.52*	13.49	.000
Job Security	.08	.04	[.00, .17]	.06	1.89	.060
Approx. Age	-.01	.01	[-.03, .00]	-.08*	-2.01	.046
Tenure	.02	.01	[.00, .03]	.07	1.92	.056
Gender	-.52	.14	[-.79, -.25]	-.13*	-3.79	.000
Living Together with Spouse	-.04	.15	[-.33, .24]	-.01	-.30	.761
N of Children at Home	.08	.06	[-.03, .19]	.05	1.46	.145
			R^2 = .82, *F* = 55.88**			

Note. B = estimated coefficient, *SE B* = standard error of coefficient est., CI = confidence interval, *β* = standardized beta coefficient, *p < .05, **p < .01, R^2 = adjusted residual.

Discussion

Discussion of the Sample Demographics

Despite efforts to include more male-dominated online interest groups, women still represented more than two-thirds of the sample (69.1%). Participants' age and tenure distributions seem to indicate that people in all different stages of a typical working lifespan were successfully captured by the survey, although people below 30 seem to be slightly underrepresented in the sample. A wide variety of job types was included with a slight overrepresentation of the educational branch. When considering the overall demographic data in Table 1 as a whole, it seems fair to say that the online survey was able to capture a reasonably balanced and representative sample of workers. The obtained data was of very high quality regarding the low percentage of missing values for non-demographic items (0.11%). Presumably, this was in part because no reward was granted for filling out the survey beyond simply having a genuine interest in taking part. Since the sample was exclusively drawn from people living and working in Sweden and Denmark, cultural effects may have influenced the collected data.

Discussion of the Results

The effect size of many of the presumed predictors discussed in the introduction was not significant, warranting a discussion about what might have led to this outcome.

The biggest surprise regarding the correlation analysis is the construct of job security. In the meta-analysis by Rubenstein et. al. (2018), job security had shown a small to moderate effect size of $r = .23$ on turnover, whereas in this study job security did not correlate significantly with turnover intention, nor with nearly any other variable. This may possibly be the result of cultural bias in turnover research. In the United States, where most of the research on turnover was conducted, participants perhaps deliberate a lot more about their job security in the context of their turnover intentions, than people in Sweden and Denmark do. Swedish and Danish people may perceive the loss of a job as less of a threat due to better social support from the state. Ultimately, the perceived benefits of the existing Swedish and to a lesser extent perhaps the Danish "safety-net" regarding unemployment benefits may have led to the Scandinavian participants not valuing job security as highly as a similar sample of participants from the United States might perhaps value it.

When it comes to the regression analysis, it was also surprising to see just how many of the presumed predictors did not achieve a significant effect size regarding turnover

intention. Appendix A shows the internal consistency of each scale, and most scales (apart from the organizational fit scale with an internal consistency of $\alpha = .67$) feature a high internal consistency well above $\alpha = .80$. The organizational fit scale may have turned out to be significant in the analysis, but a look at its items in Appendix A reveals that this scale did not measure a single construct, but rather two different ones. However, since all of the other scales seem to be in order and were taken from existing scales with a usually decent construct validity, it is hard to conclusively determine what ultimately led to the "underperformance" of several previously established turnover predictors. One possible explanation is that the study may have been too underpowered even although a Cohen's f^2 of .10 was chosen in the power analysis. In that regard, a higher sample size would have been necessary in order to detect even smaller significant effect sizes of below $f^2 = .10$. Another separate issue could have been that the presumed predictors were ultimately taken from a meta-analysis which focused on turnover predictors, rather than turnover intention predictors. Both Rubenstein et al. (2018) and Hom et al. (2017) ultimately warned against equating both constructs as if they were nearly identical. It is therefore entirely possible, that some of the constructs are much better predictors of turnover, than they are of mere turnover intentions.

Limitations

As mentioned beforehand, when it comes to measuring real turnover, one should ideally measure the outcome one is actually interested in. Turnover intention can undoubtedly be the focal object of some research interest, especially as part of intervention programs designed to identify potential leavers before it is too late to change their mind. However, thoughts do not automatically lead to corresponding actions, so while turnover intention may the best predictor of actual turnover we know of, a correlation of just under $r = .60$ is still far from a 1:1 ratio and should be kept in mind when considering the results of this study.

Regarding the interpretation of significant prediction, it should be made clear once again, that this data cannot simply be interpreted in a causal manner. Since this was a cross-sectional study which collected data on potential predictors, as well as on the outcome variable at the same time, these and other variables could have influenced turnover intention significantly due to several other reasons apart from a direct causal link. The same goes for the correlation analysis: Some correlations may exist or be strengthened due to reverse or bidirectional causal links, which seems particularly likely in the case of some pairings like job search and turnover intention. Some apparent effects of one variable on another could instead be mediated or moderated by third variables, rather than due to a direct causal link.

But rather than as second-rate attempts trying to prove and establish causal relations, cross-sectional studies like this one should ultimately be seen as primarily explorative endeavors. Such endeavors can provide valuable hints for possible new research directions and can lay the groundwork to justify the cost and effort of conducting a large-scale longitudinal study which can and should be designed to further explore and possibly establish the existence or nonexistence of causal links beyond reasonable doubt.

Discussion of Psychological Safety

Despite a study which may have been slightly too underpowered for detecting effect sizes of a smaller magnitude, psychological safety still turned out to be a significant predictor of turnover intention with a moderate effect size of β = -.12. Comparing this effect size to those of the other significant turnover intention predictors in the regression model (organizational commitment, β = -.19; stress and exhaustion, β = .09; and job search, β = .50) suggests that the role of psychological safety as a potential turnover predictor most certainly warrants to be investigated via further research. Moreover, in the correlation analysis psychological safety has not only shown a moderately high and significant negative correlation with turnover intention, but it has also shown moderate to high correlations in the directions one would expect from a "protective predictor" with every single other measured variable apart from job security. Ultimately, the main hypothesis was confirmed: Psychological safety reached a significant and moderate effect size in the proposed multiple linear regression model. This prompts us to accept that a measured effect of psychological safety on at least turnover intention may also be rather likely, though of course a direct causal interpretation cannot be made based on a cross-sectional study design alone.

Conclusions and practical implications

While keeping all of the previously mentioned limitations in mind, I think that this study has been undoubtedly successful in showing that the construct of psychological safety is deserving of further research, as it appears to have the potential to belong in a line-up of very potent turnover predictors. Future studies with greater scope and available resources should aim higher and attempt to collect actual turnover data in order to maximize the potential usefulness of their findings for both science and practice. Ideally, such a future study should be set up over multiple time measurements over at least one or two years in order to more firmly establish any possible causal links in case they are detected. A sufficient

sample size and test power should also be ensured, so that effect sizes below a "moderate" size don't manage to stay undetected.

Beyond further research interest, these findings also hold some practical implications for the design and execution of turnover reduction strategies: By including psychological safety in a comprehensive employee retention strategy, an organization would include a potentially rather significant protective factor in their program, while simultaneously reaping all the other positive benefits already associated with a psychologically safe work environment, such as much higher team performance and creativity.

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Appendix A

Item and Scales

		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Turnover Intention Scale								
The following questions are about your intention to leave your job and your prospects to find another	Följande frågor handlar om din inställning och möjlighet till att hitta ett nytt jobb	3.65	1.94	1	7	.16	-1.20	.88
I often think of leaving the company	Jag tänker ofta på att sluta på mitt jobb	3.74	2.14	1	7	.06	-1.42	.80
It is very possible that I will look for a new job next year	Det är mycket möjligt att jag börjar leta efter ett nytt jobb nästa år	3.88	2.35	1	7	.00	-1.59	.84
If I may choose again, I will choose to work for the current company*	Om jag skulle kunna välja igen skulle jag stanna kvar på min nuvarande arbetsplats*	4.68	1.98	1	7	-.60	-.79	.84
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Psychological Safety Scale								
The following questions are about how safe you feel to be who you are and say what you think at work	Följande frågor handlar om hur säker du känner dig på ditt jobb. Med säkerhet menas t.ex. om du känner dig trygg att vara dig själv och uttrycka dina åsikter	4.93	1.26	1	7	-.85	.35	.80
In our company, some employees are rejected for being different*	På min arbetsplats tolereras inte de som är annorlunda*	2.65	1.79	1	7	.89	-.40	.77

When someone in our company makes a mistake, it is often held against them*	Har man gjort ett fel påminns man ständigt om det*	2.65	1.90	1	7	.93	-.27	.74
It is difficult to ask others for help in our company*	Det är svårt att be om hjälp*	2.43	1.72	1	7	1.17	.28	.75
In our company one is free to take risks	Det är accepterat att ta risker på jobbet	4.04	1.74	1	7	-.32	-.91	.82
The people in our company value others' unique skills and talents	Inom företaget värdesätter man de anställdas unika talanger och kunskaper	4.49	1.88	1	7	-.55	-.89	.75
As an employee in our company, one is able to bring up problems and tough issues	Som anställd inom företaget är det accepterat att påtala problem och brister	4.81	1.86	1	7	-.74	-.51	.74
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Job Satisfaction Scale								
The following questions are about your job satisfaction	Följande frågor handlar om hur nöjd du är med ditt jobb	5.21	1.40	1	7	-.96	.02	.88
Most days I am enthusiastic about my work	De flesta dagarna känner jag mig entusiastisk över mitt jobb	5.06	1.69	1	7	-1.03	.13	.85
I feel fairly satisfied with my present job	Jag är mestadels nöjd med mitt nuvarande jobb	5.21	1.72	1	7	-.94	-.26	.84
Each day at work seems like it will never end*	Varje arbetsdag känns som att den aldrig kommer sluta*	2.86	1.71	1	7	.77	-.54	.90
I find real enjoyment in my work	Jag känner genuin glädje i mitt jobb	5.18	1.56	1	7	-1.10	.60	.85
I consider my job rather unpleasant*	Mitt jobb är oangenämt*	2.54	1.75	1	7	.90	-.34	.88
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α

Employee Engagement Scale The following questions are about how engaged you feel regarding your work	Följade frågor handlar om hur engagerad du känner dig på jobbet	5.16	1.24	1	7	-.83	.27	.90
At work, I feel full of energy	På jobbet känner jag mig full av energi	4.72	1.62	1	7	-.73	-.35	.89
When I get up in the morning, I feel like going to work	När jag vaknar på morgonen har jag lust att jobba	4.33	1.91	1	7	-.39	-1.13	.88
I find the work that I do full of meaning and purpose	Mitt jobb är meningsfullt	5.68	1.59	1	7	-1.51	1.78	.89
My job inspires me	Mitt jobb är inspirerande	5.18	1.63	1	7	-.997	.37	.89
I am proud of the work I do	Jag är stolt över mitt jobb	5.77	1.45	1	7	-1.50	2.24	.89
Time flies when I'm working	Tiden går snabbt när jag jobbar	5.41	1.53	1	7	-1.16	.86	.89
I feel happy when I am working intensely	Jag känner mig lycklig när jag jobbar intensivt	5.38	1.51	1	7	-1.11	.84	.90
I am immersed in my work	Jag går fullständigt upp i mitt jobb	4.85	1.63	1	7	-.57	-.48	.90
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Organizational Fit Scale The following questions are about how well you think you fit with your organization (The terms "company" and "organization" are used interchangably throughout the entire survey)	Följade frågor handlar om hur du anser att du passar ihop med din arbetsgivare ("Organsation" och "företag" är i det här fallet synonyma och används genomgående på det sättet genom hela undersökningen)	5.24	1.22	1	7	-.88	.25	.67

My personal values match my organization's values and culture	Jag och min arbetsgivare delar samma värderingar	4.80	1.81	1	7	-.90	-.31	.37
There is a good fit between what my job offers me and what I am looking for in a job	Det min arbetsgivare erbjuder stämmer överens med det jag vill ha i ett jobb	4.74	1.71	1	7	-.77	-.49	.35
The match between the demands of my job and my personal skills is very good	Jag har de egenskaperna som mitt jobb kräver	6.19	1.08	1	7	-2.26	6.67	.80
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Organizational Climate Scale The following questions are about how you perceive the organizational climate	Följande frågor handlar om hur du upplever din arbetsmiljö	5.20	1.29	1	7	-.87	.08	.88
My workplace is pleasant	Min arbetsplats är angenäm	5.05	1.63	1	7	-.85	-.15	.86
The relationships with my coworkers are good	Min relation till mina kollegor är bra	6.06	1.26	1	7	-2.23	5.54	.88
My suggestions about the job are listened to	Jag känner att man tar mina idéer och förslag på allvar	5.30	1.78	1	7	-1.19	.46	.85
It is easy to find help when needed	Det är lätt att få hjälp när man behöver det	5.22	1.71	1	7	-1.03	.16	.86
My work is adequately valued	Mitt arbete värdesätts på ett adekvat sätt	5.03	1.75	1	7	-.81	-.38	.85
The atmosphere is impersonal*	På min arbetsplats känns atmosfären opersonlig*	2.86	1.80	1	7	.85	-.35	.88
I feel as though I'm treated like a machine or a programmed object*	Det känns som att jag behandlas som en maskin*	2.69	2.02	1	7	.88	-.67	.85

Where I work, there are people with unfair privileges*	På min arbetsplats har vissa oförtjänta privilegier*	3.50	1.97	1	7	.15	-1.26	.88
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Transformational Leadership Scale The following questions are about how you perceive your supervisor In case you don't have a direct supervisor, think of one supervisor within your organization that you know best In case you yourself are in a leading position without a direct supervisor, think about the person closest in rank to you	Följande frågor handlar om hur du upplever din närmaste chef I fall att du inte har en direkt överordnad, tänk istället på en överordnad person inom ditt företag som känner väl Om du inte har en direkt överordnad, tänk istället på en kollega som är närmast dig i rang	4.56	1.59	1	7	-.62	-.53	.91
My supervisor encourages subordinates to be team players	Min närmaste chef uppmuntrar gärna sin grupp till samarbete	5.14	1.77	1	7	-.92	-.02	.90
My supervisor behaves in a manner thoughtful of my personal needs	Min närmaste chef tar hänsyn till mina personliga behov	5.15	1.84	1	7	-1.09	.12	.90
My supervisor leads by example	Min närmaste chef leder genom att själv vara ett gott föredöme	4.65	2.06	1	7	-.56	-.95	.89
My supervisor challenges me to set high goals for myself	Min närmaste chef utmanar mig att sätta höga mål för mig själv	4.40	1.93	1	7	-.41	-.96	.91

My supervisor inspires others with his/her plans for the future	Min närmaste chef inspirerar andra genom sina framtidsvisioner	4.14	1.96	1	7	-.26	-1.17	.90
My supervisor challenges me to think about old problems in new ways	Min närmaste chef får mig att se gamla problem på nya sätt	3.90	1.84	1	7	-.16	-1.05	.90
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Organizational Commitment Scale The following questions are about how committed you feel to your company	Följande frågor handlar om hur engegerad du känner dig gällande ditt jobb	4.16	1.51	1	7	-.24	-.65	.82
I would be happy to spend the rest of my career in this company	Jag skulle gladeligen kunna jobba kvar inom företaget resten av min karriär	4.30	2.10	1	7	-.39	-1.23	.81
I really feel as if this company's problems are my own	Jag känner verkligen att företagets problem är mina problem	3.83	2.02	1	7	-.11	-1.35	.79
I do not feel a strong sense of belonging to my company*	Jag känner mig inte speciellt tillhörig till mitt företag*	3.37	1.87	1	7	.36	-.96	.76
I do not feel 'emotionally attached' to this company*	Jag är inte "känslomässigt bunden" till företaget*	4.03	1.99	1	7	.07	-1.24	.80
This company has a great deal of personal meaning for me	Företaget jag jobbar inom har en personlig betydelse för mig	4.11	1.90	1	7	-.35	-1.03	.75
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Job Embeddedness Scale The following questions are about how embedded you are in your job	Följande frågor handlar om hur tillhörig du känner dig till ditt företag	3.64	1.53	1	7	.06	-.81	.81

I feel attached to this company	Jag känner mig som en del av företaget	4.59	1.91	1	7	-.66	-.80	.83
It would be difficult for me to leave this company	Det skulle vara svårt för mig att lämna företaget	3.83	2.00	1	7	-.03	-1.32	.68
I feel tied to this company	Jag känner mig bunden till företaget	3.40	1.88	1	7	.19	-1.18	.73
I simply could not leave the company that I work for	Jag skulle inte kunna lämna mitt jobb	2.75	1.87	1	7	.67	-.91	.80
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Job Opportunities Scale The following questions are about the opportunities your company can offer you	Följande frågor handlar om vilka möjligheter ditt företag kan erbjuda dig	3.70	1.64	1	7	-.06	-.99	.86
My company provides opportunities for employees to develop their specialized functional skills	Mitt företag ger mig möjligheten att utveckla mina förmågor och kunskaper	4.61	1.94	1	7	-.62	-.86	.83
My company has programs and policies that help employees to reach higher managerial levels	Mitt företag har etablerade program som hjälper medarbetarna att nå högre positioner i hierarkin	3.25	2.03	1	7	.31	-1.26	.85
There are career opportunities within my company that are attractive to me	Mitt företag erbjuder attraktiva karriärmöjligheter	3.21	1.87	1	7	.31	-1.19	.80
My company offers many job opportunities that match my career goals	Mitt företag erbjuder möjligheter som överensstämmer med mina mål och drömmar	3.72	1.95	1	7	.00	-1.30	.82

		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Stress and Exhaustion Scale The following questions are about how you have been feeling during the last 5 weeks	Följande frågor handlar om ditt mående under de senaste 5 veckorna	2.93	1.20	1	5	.23	-1.17	.91
How often have you felt worn out?*	Hur ofta har du känt dig utsliten?*	3.03	1.34	1	5	-.16	-1.25	.85
How often have you been physically exhausted?*	Hur ofta har du känt dig fysiskt uttömd?*	3.23	1.38	1	5	-.26	-1.21	.89
How often have you been emotionally exhausted?*	Hur ofta har du känt dig känslomässigt uttröttad?*	2.91	1.32	1	5	.03	-1.22	.89
How often have you had problems relaxing?*	Hur ofta har du haft problem att slappna av?*	3.11	1.38	1	5	-.18	-1.25	.89
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α
Job Search Scale The following questions are about how much you engage in job search	Följande frågor handlar om du för närvarande letar efter ett annat jobb	3.44	1.96	1	7	.27	-1.15	.80
At the present time, I am actively searching for another job in a different company	För närvarande söker jag jobb i andra företag	2.74	2.17	1	7	.76	-1.05	.72
It is unlikely that I will actively look for a different company to work for in the next year*	Det är inte troligt att jag aktivt kommer att söka ett annat jobb inom det kommande året*	4.09	2.44	1	7	-.02	-1.65	.79
I am not thinking about quitting my job at the present time*	För närvarande tänker jag inte på att sluta på mitt jobb*	4.33	2.32	1	7	-.20	-1.52	.69
		M	SD	Min	Max	Skew	Kurtosis	Intern. consist. α

Job Security Perception Scale								
The following questions are about how secure you perceive your job to be	Följande frågor handlar om hur säker du upplever att din position är inom företaget	5.37	1.40	1	7	-.80	.03	.78
If this organization were facing economic problems, my job would be the first to go*	Mitt jobb skulle vara det första att försvinna vid en ekonomisk Kris*	2.30	1.68	1	7	.16	.02	.75
I am confident that I will be able to work for this company as long as I wish	Jag kan jobba för det här företaget så länge jag själv väljer att göra det	5.62	1.60	1	7	.16	1.39	.72
If my job were eliminated, I would be offered another job in the company	Om min nuvarande position inom företaget skulle försvinna kommer de att erbjuda mig ett annat jobb	4.61	2.14	1	7	.16	-1.12	.81
My job is secure	Mitt jobb är säkert	5.53	1.71	1	7	.16	.29	.65

Note. M = arithmetic mean, SD = standard deviation, Min = minimum value, Max = maximum value, * = values for this item were reversed for calculation of the corresponding scale, internal consistency α - column shows scale reliability or α value if item was deleted

Appendix B

English version of the survey introduction

Welcome to the job satisfaction survey!

Thank you for choosing to participate in this study by answering a few questions about your job. I am interested in your experiences while working for your company to learn more about what makes people want to leave or stay at their company. The whole survey should only take about 15 to 20 minutes to complete.

Your participation in this study is entirely voluntary and you are anonymous. Data about individuals will not be shared with the company you are working at.

The results of the study will only be reported on a group-level so that the collected data can not be used to identify you or your colleagues.

You can discontinue the study at any time.

There are no “right” or “wrong” answers. Select the option that you believe best describes your situation and your thoughts and feelings.

If you ever feel stuck on a question, then simply go with your "gut feeling".

By clicking "Next Page" to begin with the survey you agree with the anonymous processing of your data

---------- Information about your rights regarding personal data ----------

In accordance with the GDPR, Lund University acts as the data controller.

The data protection officer can be reached via dataskyddsombud@lu.se

This study is carried out as a Master of Science thesis at Lund University by Eugen Groh

If you have questions regarding this research, please get in contact via email:

eu0377gr-s@student.lu.se

[i] You have the right to withdraw your consent at any time by simply discontinuing the survey before you have pressed the "submit" button on the last page.

[i] You have the right to gain access to your personal data or request the correction or deletion of your personal data.

[i] You have the right to file a complaint about how the personal data is used.

Be advised, that since the collected data is anonymous it may be hard or even impossible to track down your specific data for the purposes mentioned above, unless you are able and willing to provide enough information about the answers you gave to clearly identify your unique data entry.

Swedish version of the survey introduction

Välkommen till den här undersökningen!

Tack för att du väljer att delta i den här studien som vill undersöka hur du trivs på ditt jobb.

Framför allt handlar det om dina erfarenheter av ditt jobb och vad det är som gör att man antingen vill stanna kvar eller väljer att byta arbetsplats.

Hela studien tar ca 15-20 minuter.

Din medverkan är frivillig och du förblir anonym.

Inga individuella resultat kommer att redovisas för det företag du arbetar på.

Dock kommer resultaten på gruppnivå att analyseras och efter utvärdering kommer dessa att presenteras för företaget.

Du kan välja att avbryta när du vill.

Tänk på att det inte finns något "rätt" eller "fel" när du svarar på frågorna.

Välj det alternativet som bäst beskriver dina tankar och känslor.

Om du känner dig osäker, följ din "magkänsla" och välj det alternativ som "känns" mest rätt.

Genom att klicka på "nästa sida" godkänner du att vi bearbetar dina uppgifter i anonym form

----------Information om dina rättigheter gällande personliga uppgifter ----------

In enlighet med GDPR är Lunds Universitet ansvariga för dina personuppgifter.

Dataombudsmannen kan nås via dataskyddsombud@lu.se

Den här studien är en del i av ett masterarbete vid Lunds Universitet av Eugen Groh.

Om du har frågor gällande studien, så kan du nå mig via email eu0377gr-s@student.lu.se

[i] Du har rätt att avsluta din medverkan utan att lämna in dina resultat genom att avsluta undersökningen innan du trycker på "skicka in" på sista sidan.

[i] Du har rätt att få tillgång till dina personliga uppgifter, skicka rättelser av uppgifterna samt att fullständigt dra tillbaka dem.

[i] Du har rätt att lämna in ett klagomål gällande hur dina uppgifter hanteras.

Eftersom att de insamlade uppgifterna är anonyma så kan det vara svårt att hitta dem om du inte kan eller är villig att ge information som gör det möjligt att urskilja din identitet genom att avslöja de svar du givit.