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## Is interpersonal justice related to group and organizational turnover? Results from a Swedish panel study

Constanze Leineweber<sup>a,\*</sup>, Paraskevi Peristera<sup>a</sup>, Claudia Bernhard-Oettel<sup>b</sup>, Constanze Eib<sup>c,a</sup>

<sup>a</sup> Stress Research Institute, Stockholm University, Stockholm, Sweden

<sup>b</sup> Department of Psychology, Stockholm University, Stockholm, Sweden

<sup>c</sup> Department of Psychology, Uppsala University, Uppsala, Sweden

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### ABSTRACT

**Rational:** Research on the relationship between organizational justice and turnover has mainly focused on turnover intentions rather than behavior, and the role of health in this relationship has been widely ignored.

**Objective:** In his study, we hypothesized that interpersonal justice perceptions and self-rated health impact on later group (changing work groups while staying in the organization) and organizational turnover (changing organizations). The main effect of self-rated health on group and organizational turnover, as well as its moderating influence on the relationship between interpersonal justice perceptions and turnover, was investigated. Finally, we investigated whether group and organizational turnover are related to changes in subsequent interpersonal justice perceptions.

**Methods:** Swedish panel data from permanent workers answering at up to five consecutive time points were used, and multilevel structural equation models were calculated.

**Results:** Results showed that low interpersonal justice perceptions increase the risk of subsequent organizational, but not group, turnover. Lower levels of self-rated health predicted group, but not organizational, turnover. The effect of interpersonal justice perceptions on organizational turnover differed depending on self-rated health. Among those with poorer self-rated health, the negative association between interpersonal justice perceptions and organizational turnover was less pronounced. We also found that organizational turnover associated positively and group turnover negatively with changes in interpersonal justice perceptions.

**Conclusion:** In conclusion, perceiving interpersonal justice decreases the risk of organizational turnover, but the association is less pronounced among employees with poor self-rated health.

### 1. Introduction

Personnel turnover is very expensive for organizations, both in terms of monetary costs associated with the recruitment and training of new personnel, and in knowledge drain and changed interpersonal dynamics between employees (Hom et al., 2012). A variety of factors such as job fit, job attitudes, supervisor behavior, harassment and abuse, involvement in work structures, and job offers have been found to be related to turnover intentions and actual turnover (Hom et al., 2012). An additional reason why employees may want to leave their jobs is that they feel unfairly treated by their employer or supervisor (Jones and Skarlicki, 2003), with the supervisor being an important source for the social exchange relationship employees form with the wider organization. Fair

treatment by the supervisor can create trust, positive emotions, and commitment. When the employees feel they are treated fairly, with respect, support, and shown that their well-being matters, it is likely that a stronger exchange relationship with the workgroup and potentially with the wider organization will be created (Bies, 2001; Blau, 1964). Indeed, it is suggested that fair treatment enhances the degree of attachment to the organization (Konovsky et al., 1987). To date, the literature on organizational justice and turnover has focused mainly on relations to turnover intentions (Colquitt et al., 2001; Eib et al., 2015; Hausknecht et al., 2011; Loi et al., 2006; Poon, 2012), while actual turnover behavior has rarely been studied (Jones and Skarlicki, 2003).

The focus on actual turnover instead of turnover intentions is crucial: even if employees experience turnover intentions, for a variety of

\* Corresponding author. Frescati hagväg 16a, 106 91, Stockholm, Sweden.

E-mail addresses: [constanze.leineweber@su.se](mailto:constanze.leineweber@su.se) (C. Leineweber), [paraskevi.peristera@su.se](mailto:paraskevi.peristera@su.se) (P. Peristera), [claudia.bernhard.oettel@su.se](mailto:claudia.bernhard.oettel@su.se) (C. Bernhard-Oettel), [constanze.eib@psyk.uu.se](mailto:constanze.eib@psyk.uu.se) (C. Eib).

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reasons, they may not act upon them (Ng and Feldman, 2010). One of these reasons might be their health. Individuals with impaired health may lack the resources to search and apply for another job, or assess their possibilities on the labor market as limited, assuming that few, if any, employers would be interested in hiring them. Indeed, among the unemployed, health is an important predictor for perceptions of employability (Vanhercke et al., 2015). Therefore, employees with impaired health may have stronger tendencies to remain at their current workplaces, even though they may perceive low levels of organizational justice. To date, very few studies have investigated the influence of health on job mobility; the causal relationship between health and job mobility has been described as “somewhat of a scientific terra incognita” (Liljegen and Ekberg, 2008, p.1).

Little is known about what happens to employees’ justice perceptions once they have changed jobs (by changing either workgroups or organizations). In line with the honeymoon-hangover effect, organizational justice levels are likely relatively high when beginning a new job (Boswell et al., 2005). Additionally, based on the notion of motivated cognition, one may presume that employees will try to keep this perception positive for as long as they can (Barclay et al., 2017). Still, research has not addressed whether the relationship between turnover and subsequent organizational justice perceptions is positive over time, and thus, whether job changes result in higher levels of organizational justice.

In response to these shortcomings, this study aims to increase the understanding of the links between organizational justice perceptions, health, and actual turnover behavior. We also investigate the association between turnover and subsequent organizational justice perceptions, specifically focusing on the aspect of interpersonal justice. Our study makes several important contributions to the literature. First, it adds to the literature by investigating actual turnover behavior – which is much less studied than turnover intentions – with two aspects: Leaving the workgroup while staying in the organization, or leaving the organization altogether. Thus, we can differentiate between group and organizational turnover (Feldman and Ng, 2007). Second, we add to the understanding of the influence of health on turnover by investigating the direct association between health and turnover, and by investigating whether the strength of the association between interpersonal justice perceptions and actual turnover depends on differences in health status. Third, this study adds to the literature by focusing on interpersonal justice; that is, the employees’ perceived fairness of their treatment from organizational representatives. In this paper, we investigate organizational representatives at the level of the immediate supervisor in order to better understand what role the supervisor’s treatment plays in employees’ turnover behavior. Research suggests that the line manager can be held responsible for interactional justice (Hollensbe et al., 2008; Rupp et al., 2014), which makes this component of the justice concept the most fitting when studying group and organizational turnover. Fourth, employees’ fairness perceptions are not stable, but rather vary over time (Hausknecht et al., 2011). Previous justice studies based on cross-sectional analyses have weak predictive validity (Moon, 2017). Here, we use panel data drawn from a large national dataset with questionnaire data collected every two years, which enables us to investigate how interpersonal justice perceptions associate with subsequent group and organizational turnover behavior. Lastly, making further use of the panel data, we also investigate the possibility that turnover subsequently associates with higher levels of interpersonal justice perceptions after either group or organizational turnover.

### 1.1. Interpersonal justice and turnover over time

While early justice research has concentrated on distributive justice – that is, the perceived fairness of the allocation of resources – later research has also been concerned with the fairness of formal decision-making in organizations (procedural justice), truthful and candid provision of information and adequate justifications (informational justice),

and respectful and dignified treatment from the supervisor (interpersonal justice) (Colquitt et al., 2001). Informational and interpersonal justice are sometimes treated as two sub-dimensions of a common factor, called interactional justice (Colquitt et al., 2001). Later, Bies (2001) has broadened the conceptualization of interactional justice to include four dimensions of interpersonal treatment (instead of two): invasion-of-privacy, disrespect, deception, and derogatory judgments (Roch and Shannock, 2006) and emphasizes that “interactional justice concerns are not limited to exchange contexts, people are concerned about interpersonal treatment in their everyday encounters in organizations” (Bies, 2001, p.106). This new conceptualization of interpersonal justice relates more strongly to leader-member exchange (LMX). Indeed, research suggests that the line manager can be held responsible for interactional justice (Hollensbe et al., 2008; Rupp et al., 2014). Beneficial treatment received from the supervisor can even increase perceived organizational support because the treatment is attributed to the organization’s policies (Rhoades et al., 2001).

In this study, we focus on interpersonal justice as an important indicator of the social exchange relationship that the employee forms with the supervisor. We regard interpersonal justice as the most important dimension to study in relation to turnover behavior, as this justice dimension is social in nature and personally intimate (Bies and Moag, 1986; Greenberg, 2011). Low interpersonal justice can evoke strong emotional reactions (Bies, 2001; Bies and Tripp, 1996; Mikula, 1986), and has been “...described as a ‘hot and burning’ experience” (Bies, 2001, p. 90). Interpersonal justice is also especially relevant when considering relational phenomena (Rupp and Cropanzano, 2002), such as turnover behavior, which by definition is the end of a work relationship. Indeed, findings by Moon (2017) indicate that outcome-focused justice dimensions (i.e., distributive and interpersonal justice) are more influential for employee turnover rates than process-focused justice dimensions (i.e., procedural and informational justice).

Different perspectives have been used to explain why (un)fair treatment matters to individuals (Colquitt et al., 2005; Greenberg, 2011), and provokes such strong reactions that may lead employees to leave their employer. The group engagement model (Tyler & Blader, 2000, 2003) suggests that justice signals to employees that they are valued members of the organization, which makes them identify more strongly with the organization. This, in turn, will increase their affective commitment to the group and the organization, and reduces their intentions to quit. In contrast, low organizational justice leaves employees feeling as though they are not valued and increases their intentions to quit and their turnover behavior. The relational model of fairness (Lind and Tyler, 1988; Tyler and Lind, 1992) posits that employees are concerned about their long-term relationship with the organization and its representatives. Subordinates are sensitive to interpersonal fairness because it portends the tenor of any future relational engagements. According to Cropanzano and Ambrose (2001), interpersonal justice is an important indicator of an employee’s standing and value in the group, which, in turn, indicates socioemotional relevance. In contrast, low interpersonal justice likely evokes negative emotions such as sadness, frustration, and anger. These feelings are known to result in negative attitudes towards the job, poor organizational commitment, and ultimately lead to withdrawal behavior, such as higher rates of absenteeism, increased turnover intentions, and, finally, actual turnover (Blau, 1964; Cropanzano and Mitchell, 2005).

Generally, turnover is assumed to follow a time sequence from distal antecedents (e.g., unfair treatment), to attitudinal antecedents (e.g., job satisfaction), to the criterion space (turnover intentions and turnover) (Hom et al., 2012). Despite this theoretical time sequence, little empirical attention has been paid to how much time elapses from distal antecedents to turnover intentions to turnover behavior. In studies on organizational turnover, time lags vary between two weeks to six or even eight years (Fortin et al., 2016). Although the ideal time lag for studies between justice perceptions and reactions in terms of turnover is

still unknown, the ideas presented by Hom et al. (2012) would suggest a rather distal relationship that may take years to develop, compared to one that takes weeks.

The suggestion that low justice perceptions associate with turnover intentions and actual turnover finds support in previous empirical studies. However, a majority of these studies focus on turnover intentions and withdrawal cognitions rather than actual turnover behavior (Jones and Skarlicki, 2003). In a meta-analytical review, only a weak relationship was found between interpersonal justice and withdrawal indicators (Colquitt et al., 2013). Other studies found no significant associations between different justice facets and turnover intentions (Hausknecht et al., 2011; Liljegren and Ekberg, 2008). While these previous studies were based on turnover intentions, Jones and Skarlicki (2003) found support for an interaction between distributive justice and interactional justice on the one hand, and organizational turnover behavior on the other, such that turnover was more likely among employees who perceived low distributive and low interactional justice. Moon (2017) found that employees are more likely to stay in the current organization when they collectively share perceptions of being treated with dignity and respect by managers.

Therefore, concerning theoretical considerations and empirical findings, our first hypothesis is:

**H1.** Individuals who perceive higher levels of interpersonal justice are less likely to change organizations in the following two years.

None of the reviewed earlier studies explicitly examined the link between justice perceptions and change of workgroup. Employees who are dissatisfied with their supervisor and/or do not get along with their workgroup may consider leaving either the workgroup or the organization. If employees blame the organization for the bad treatment they receive, they may consider leaving the organization. However, employees who rate the interpersonal justice of their supervisor as low may consider staying in the organization but choose to change workgroups to escape from the supervisor. Reasons for group instead of organizational turnover can include the desire to safeguard one's retirement funds, insurance, or payment levels (Mitchell et al., 2001), embeddedness (Allen, 2006), or social networks that increase organizational ties (Feldman and Ng, 2007). For group turnover (sometimes also referred to as internal job mobility, see Feldman and Ng, 2007), we formulate:

**H2.** Individuals who perceive higher levels of interpersonal justice are less likely to change workgroups in the following two years.

### 1.2. The role of health status

Research on employability shows that individuals with impaired health perceive their chances of being hired in another (and potentially better) position as rather low (Vanhercke et al., 2015). Consequently, good health may in and of itself be a prerequisite for enacting group or organizational turnover. Despite the importance of health for both turnover intentions and turnover behavior, its role has rarely been considered empirically.

In psychological research, clinical settings, and general population surveys, health is commonly conceptualized in terms of self-rated health (Bombak, 2013). The development of self-rated health occurs during childhood and adolescence, and afterward remains rather stable throughout life (Wade and Vingilis, 1999; Vie et al., 2014). According to the health selection or drift hypothesis (Cardano et al., 2004), health has a causal effect on individuals' chances for social mobility, especially upward social mobility. Applying this theory to job mobility (Liljegren and Ekberg, 2008), a person with impaired health will be less able to take action towards job mobility as compared to a person with good health. In other words, because finding another job demands some degree of effort and energy (Wanberg et al., 2012), the possibility to find a new job might be rather constrained for individuals with impaired health.

According to the conservation of resources (COR) theory (Hobfoll, 1989), individuals are motivated to invest their resources (e.g., time as well as physical and emotional energy) if they believe these investments will lead to resource gains (e.g., a better job offer that brings financial benefits, competency development, or other valued resources, such as better health). If individuals do not believe their efforts will lead to an increase in resources, they will likely focus on protecting their current resources from depletion, as a loss of resources, or even the prospect of future losses, is associated with stress and decreased well-being (Hobfoll, 1989). One important resource for employees, at least in the Swedish context, is the relatively high level of protection due to a norm of seniority, often called the "last-in-first-out" principle (Below and SkogmanThoursieb, 2010). That is, employees with impaired health might prefer to stay in an organization to keep their relatively secure position, rather than be the person who is "last-in" in a new organization. Individuals who deem their chances of gaining a better position in another organization or workgroup as low might be more prone to protect their remaining resource levels. For example, individuals with impaired health may avoid all stressors and activities that cost extra energy (such as applying for a new job) in order to fulfill their current work role, rather than risk further impairment to their health and eventually lose their current job. Consequently, our third hypothesis reads:

**H3.** Individuals with lower self-rated health are less likely to change organizations in the following two years.

Health might not only have a direct effect on organizational turnover, but might also affect the relationship between interpersonal justice perceptions and turnover, such that employees with impaired health may react less strongly to low interpersonal justice with turnover. That is, we predict that employees with impaired health prefer keeping their relatively secure position to avoid further unfair treatment. Thus, we hypothesize:

**H4.** Individuals' average level of self-rated health moderates the association between interpersonal justice perceptions and probability of organizational turnover in the next two years, such that the association is less pronounced for individuals with lower average levels of self-rated health.

Applying for a new job or asking for relocation within the organization, as well as adapting to a new workgroup, is stressful and energy-intensive. Therefore, following the reasoning outlined above, we hypothesize:

**H5.** Individuals with lower self-rated health are less likely to change workgroups in the following two years.

And

**H6.** Individuals' average level of self-rated health moderates the association between interpersonal justice perceptions and the probability of group turnover in the next two years, such that the association is less pronounced for individuals with lower average levels of self-rated health.

### 1.3. Justice perceptions after turnover

As most organizations go to considerable lengths to instill fairness perceptions in new employees, one would expect high justice perceptions at the beginning of a new job (Saks and Gruman, 2012). The often formalized recruitment and hiring process is mainly determined by the organization and consequently likely to reflect fair procedures. Also, organizational authorities involved in the recruitment processes tend to make concerted efforts to appear fair, out of business, ethical, and legal considerations (see Gilliland, 1993). Consequently, the likelihood of rule violations with regard to interpersonal justice is minimized for at least the first period, during the induction and socialization process.

Starting a new job is often associated with a considerable amount of

unease and uncertainty. According to the Fairness Heuristics Theory (Fairness Heuristics Theory (FHT); van den Bos and Lind, 2002), individuals pay more attention to fairness-relevant information under conditions of uncertainty (Elovainio et al., 2005). At the same time, the notion of motivated cognition suggests that job changers will work hard to align their justice perceptions with what they want to be true (Barclay et al., 2017); in our case, high interpersonal justice in the new organization. In the same vein, Shapiro and Kirkman (2001) argued that confirmation bias tendencies (Snyder and Swann Jr, 1978) might be at work in the formation of justice perceptions, such that initial justice perceptions will be confirmed and consolidated over time. Therefore, we expect the levels of interpersonal justice to be higher after starting a new job.

Consequently, we hypothesize:

**H7.** Organizational turnover during the past two years is followed by increased levels of interpersonal justice perceptions.

The same reasoning should apply to group turnover. Employees who leave their workgroup while staying in the organization might already know the manager or supervisor in the new group, or they may be able to use the inner organizational network to get relevant information prior to joining a new workgroup. It seems unlikely that an employee would choose to work in a new workgroup with a supervisor known to behave unfairly. This should further increase the likelihood that group turnover will result in increased levels of interpersonal justice perceptions. Thus, our final hypothesis reads:

**H8.** Group turnover during the past two years is followed by increased levels of interpersonal justice perceptions.

## 2. Methods

### 2.1. Study sample

The project is based on data collected in the Swedish Longitudinal Occupational Survey of Health (SLOSH), a nationally representative longitudinal cohort survey with a focus on the associations between work organization, work environment, and health (Magnusson Hanson et al., 2018). Collection of data on the SLOSH cohort started in 2006 with a follow-up of the participants in the Swedish Work Environment Surveys (SWES) from 2003. New waves of SWES have been added over time, and, today, SLOSH comprises all SWES participants from 2003 to 2011 ( $n = 40,877$ ). As SLOSH is based on the SWES, it can be regarded as approximately representative of the Swedish working population. All labor market sectors and occupations are represented, and the numbers of men and women are approximately equal. The study was approved by the ethical review board in Stockholm (#2018/1439–32).

Since the start, participants have been asked every second year (i.e., 2006, 2008, 2010, 2012, 2014, 2016, and 2018) to complete a postal questionnaire in one of two versions: one for those currently in paid work, or one for those permanently or temporarily outside the labor market. Here, analyses were restricted to those who answered the questionnaire for those in paid work for at least two subsequent waves ( $N = 14,426$ ) between 2010 and 2018. After the exclusion of those with non-permanent contracts at any time ( $n = 3029$ ) and no information on interpersonal justice in any wave ( $n = 65$ ), the study sample comprised 11,332 individuals. The final study sample consisted of 58.23% women ( $n = 6636$ ) with a mean age of 48.69 years ( $SD = 9.21$ ). About half of the study population were blue-collar or lower white-collar workers (43.62%,  $N = 4964$ ). Mean interpersonal justice at entrance to the study was 1.97 (range 0 to 3,  $SD = 0.78$ ) and mean self-rated health was 2.99 (range 0 to 4,  $SD = 0.67$ ). About 21% ( $n = 2347$ ) had changed organizations during the past two years, and 14% ( $n = 1585$ ) reported having changed workgroups.

Dropout analyses based on the first valid observation showed statistically significant differences in sex, socioeconomic position, and age

between the analytic study sample ( $n = 11,332$ ) and those who were excluded due to missing data ( $n = 23,760$ ). More women (58.37% vs. 41.63%;  $p < .001$ ) and persons in higher socioeconomic positions (59.80% vs. 40.20%;  $p < .001$ ) remained in the study sample. Those who were included were also younger than those who dropped out ( $48.66 \pm 9.2$  vs.  $53.55 \pm 12.53$ ;  $p < .001$ ). Differences in job changes were found: those who remained in the study sample reported somewhat more organizational (19.16% vs. 16.58%,  $p < .05$ ) and group (14.26% vs. 11.96%,  $p < .05$ ) turnover. Also, average self-rated health differed between the analytic sample and those excluded ( $2.99 \pm 0.67$  vs.  $2.88 \pm 0.83$ ;  $p < .001$ ). No differences in interpersonal justice perceptions were found.

### 2.2. Measures

Interpersonal justice was measured using four items from the Stress profile – Managerial leadership scale (Leineweber et al., 2017; Setterlind and Larsson, 1995). The items are “I receive praise from my boss if I have done something good”, “My boss shows that he/she cares how things are for me and how I feel”, “My boss encourages my participation in the scheduling of my work”, and “My boss takes the time to become involved in his/her employees”. All items are answered on a four-point Likert scale ranging from 1 = “yes, often” to 4 = “no, never”. For analyses, responses were revised so that they ranged from 0 to 3, with higher values indicating higher levels of interpersonal justice. Cronbach’s alpha was satisfactory at all four time points (2010: 0.89; 2012: 0.88; 2014: 0.89; 2016: 0.89).

Group and organizational turnover were measured using two questions. Following the statement “The following questions apply to your place(s) of work in the past two years: ...”, participants were asked to answer how many times they had changed jobs and/or workgroups. Response options were dichotomized into 0 = “no” (1 = “not at all”) and 1 = “yes” (2 = “yes, once”; 3 = “yes, 2–3 times”; 4 = “yes, 4 times or more”). Likewise, among participants who had not left their organization during the past two years, the dichotomous variable “group turnover” was formed.

Self-rated general health was used to measure health status, based on the single question “How would you rate your general state of health?” answered on a five-point scale ranging from very good to very bad. For analyses, the scale was reversed; thus, a value of 4 indicates very good self-rated health and a value of 0 very poor self-rated health. The validity and reliability of this item have been shown in various studies, and it is considered a reliable and valid global health measure (Idler and Benyamini, 1997). In this study, each person’s mean self-rated health was calculated across time points and then grand-mean centered.

As covariates, we included age, sex, and socioeconomic position, all derived from linkage to registry data. Age is number of years-old at baseline. Sex is binominal-coded into male (0) and female (1). Socioeconomic position is based on the Swedish socioeconomic classification (Statistics Sweden, 1982) and re-coded into six categories (1 = unskilled workers; 2 = skilled workers; 3 = assistant non-manual employees; 4 = intermediate non-manual employees; 5 = professionals, higher civil servants, and executives; and 6 = self-employed).

### 2.3. Analytical strategy

The hypotheses were tested using multilevel structural equation modeling (MSEM) with observed and latent variables. This was done for three reasons. First, the data contain multiple levels; that is, there were multiple measurement points (Level 1 – within-person level) nested within individuals (Level 2 – between-person level). Second, intraclass correlation analysis showed that a large proportion of the variance in interpersonal justice, organizational turnover, and group turnover could be attributed to between-person differences (ICCs = 0.457; 0.163 and 0.159, respectively), which rendered the use of ordinary least squares (OLS) regression inadequate (Klein et al., 2000). Third, MSEM can

provide tests of overall model fit in addition to the evaluation of each individual path (Yu et al., 2015) and allow for binomial outcome variables.

In the first step, we tested the measurement invariance of our predictor variable interpersonal justice; that is, we tested whether the construct and the items had the same meaning over time. We used the comparative fit index (CFI), root mean square error of approximation (RMSEA), and SRMR to judge and compare model fit. Due to the large sample size, we used  $\Delta$ CFI together with  $\Delta$ RMSEA to evaluate measurement invariance (Chen, 2007). Following Chen, a change of  $\geq -0.010$  in CFI, supplemented by a change of  $\geq 0.015$  in RMSEA or a change of  $\geq 0.030$  in SRMR, would indicate non-invariance.

In the second step, we used a dynamic model that incorporates temporal dynamics (i.e. the dependence of the future on the past) in the form of lagged effects that are known to overcome the causal inference problems of the static models (i.e., models excluding lagged effects). Specifically, we fitted the following path models (the same models were run for organizational and group turnover, in the following description labeled turnover). First, using MSEM, the dichotomous variable turnover was regressed on the latent variable interpersonal justice (H1 and H2 – Model Ia – the unadjusted model) at the *within-person level*, where the intercept was considered random, while the slope of the Level-1 regression was regarded as a fixed coefficient (the *between-person level*). Second, this model was extended to additionally include paths from the predictors age, sex, and socioeconomic position to turnover at *between-person level* (H1 and H2 – Model Ib – adjusted model). Third, we included a direct effect of health (H3 and H5, – Model IIa) and a cross-level interaction between the latent variable interpersonal justice (*within-person* predictor) and health (*between-person* predictor) (H4 and H6 – Model IIa). In this model, both random intercepts and random slopes were specified and both Level-1 and Level-2 predictor variables were estimated at the same time. The same models were adjusted for covariates at Level 2 (H3 to H6 – Model IIb). Finally, we tested whether organizational and group turnover related to later interpersonal justice perceptions. For this, interpersonal justice was regressed on organizational and group turnover, respectively, as well as on interpersonal justice measured at the previous wave (H7 and H8 – Model IIIa). With this procedure, we controlled for the stability of interpersonal justice and tested whether turnover in the previous two years was associated with a change in interpersonal justice perceptions between the two years. Again, intercepts were allowed to vary, while slopes were regarded as fixed effects. The next model adjusted for sex, age, and social position (H7 and H8 – Model IIIb).

All associations were inspected using the unstandardized parameters, as standardized values could not be obtained for the moderation effect (Model II). Data preparation and descriptive analyses were run in SAS 9.4. The MSEM models were tested in Mplus 8.2, which uses full information maximum likelihood (FIML) to account for missing data. FIML has been shown to produce unbiased parameter estimates and standard errors under MAR (missing at random) and MCAR (missing completely at random) (Newsom, 2018).

### 3. Results

#### 3.1. Descriptive results

Means, standard deviations, and correlations between study variables are presented in Table 1. Interpersonal justice was positively associated with being female, having a higher socioeconomic position, and organizational turnover during the past two years. Organizational turnover, in addition to its positive association with interpersonal justice, had also significant correlations with age and socioeconomic position. Group turnover showed no association with interpersonal justice but was associated with age, sex, and socioeconomic position. Finally, self-rated health was associated positively with interpersonal justice and organizational turnover, as well as with age and socioeconomic position.

#### 3.2. Measurement invariance

Before testing the hypotheses, we examined configural, metric, and scalar invariance for the latent variable interpersonal justice, to ensure that our hypotheses could be tested accurately. Configural invariance indicates whether or not the same items measure the construct across time, metric invariance indicates that the construct has the same meaning to participants across time, and scalar invariance indicates that item intercepts are also equivalent across time, which allows for the comparison of means across time (Bialosiewicz et al., 2013).

By testing for measurement invariance across time, metric invariance was established. For scalar invariance, the model CFI changed slightly more than the recommended values ( $\Delta$ CFI =  $-0.012$ ), but both  $\Delta$ RMSEA and  $\Delta$ SRMR were below the recommended thresholds (Chen, 2007). Thus, scalar invariance was supported. Also, the fit indices for the more stringent models were considered to be good and no changes above the established thresholds were found (see online supplement, Table 1). We concluded that interpersonal justice is comparable over time; that is, observed changes in interpersonal justice perceptions are attributable to real changes in interpersonal justice perceptions.

#### 3.3. Hypothesis testing

Unstandardized estimates are presented below and in Fig. 1. Standardized estimates (except for Model II) can be found in Tables 2–4 in the online supplement.

##### 3.3.1. Interpersonal justice as a predictor of organizational turnover

We hypothesized that high interpersonal justice perceptions would be negatively related to organizational turnover during the next two years. In line with Hypothesis 1, we found that interpersonal justice was negatively associated with organizational turnover during the next two years ( $B = -0.163$ ,  $p < .001$ ). That is, those who experienced higher levels of interpersonal justice showed a decreased probability of organizational turnover. Controlling for age, sex, and socioeconomic position somewhat strengthened the association ( $B = -0.334$ ,  $p < .001$ ).

##### 3.3.2. Interpersonal justice as a predictor of group turnover

We also expected a negative association between interpersonal

**Table 1**

Mean, standard deviations, and correlations for the study variables based on the first valid observation.

	Range	M	SD	1.	2.	3.	4.	5.	6.
1. Age (yrs)	21–69	48.69	9.21	–					
2. Women <sup>a</sup>	0–1	0.58	–	–0.01	–				
3. Socioeconomic position	1–6	3.36	1.34	–0.09***	0.06***	–			
4. Interpersonal justice	0–3	1.97	0.78	–0.02	0.06***	0.10***	–		
5. Organizational turnover <sup>a</sup>	0–1	0.21	–	–0.15***	0.01	0.10***	0.04**	–	
6. Group turnover <sup>a</sup>	0–1	0.14	–	–0.03*	0.06***	0.05***	–0.00	–0.20***	–
7. Self-rated health	0–4	2.99	0.68	–0.03**	0.01	0.10***	0.14***	0.03*	–0.00

Note. Ns vary between 10,199 and 11,396. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . <sup>a</sup> Binary measure (portions given).

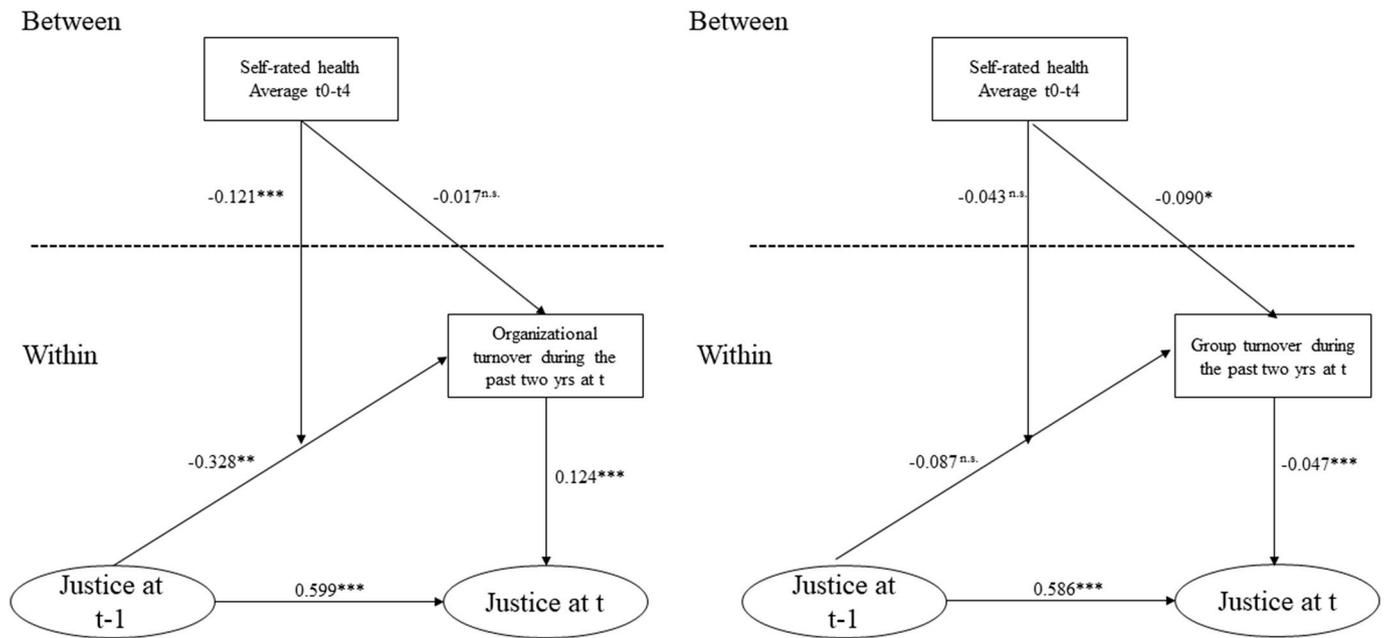


Fig. 1. Unstandardized structural equation model parameters and p-values for paths between interpersonal justice and turnover from the adjusted models 2 and 3 (summarized). Data from SLOSH 2010–2018. The left pictures show the associations involving organizational turnover, the right picture the associations involving group turnover (\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ).

justice and group turnover during the next two years. Interpersonal justice was not associated with group turnover during the next two years ( $B = -0.022$ ;  $ns$ ). Controlling for age, sex, and socioeconomic position did not change the results ( $B = -0.031$ ;  $ns$ ). Thus, the results did not support Hypothesis 2.

3.3.3. The role of health

We found a weak and only borderline significant association between

self-rated health and organizational turnover in the unadjusted model ( $B = 0.059$ ,  $p < .05$ ). This association became non-significant in the adjusted model ( $B = -0.17$ ,  $ns$ ). Thus, Hypothesis 3 was not supported. However, self-rated health associated negatively with group turnover ( $B_{unadjusted} = -0.075$ ,  $p < .05$ ;  $B_{adjusted} = -0.090$ ,  $p < .01$ ), indicating that individuals with better self-rated health were less likely to change workgroups. Thus, the results did not support Hypothesis 5. Further, we expected a less pronounced association between low levels of

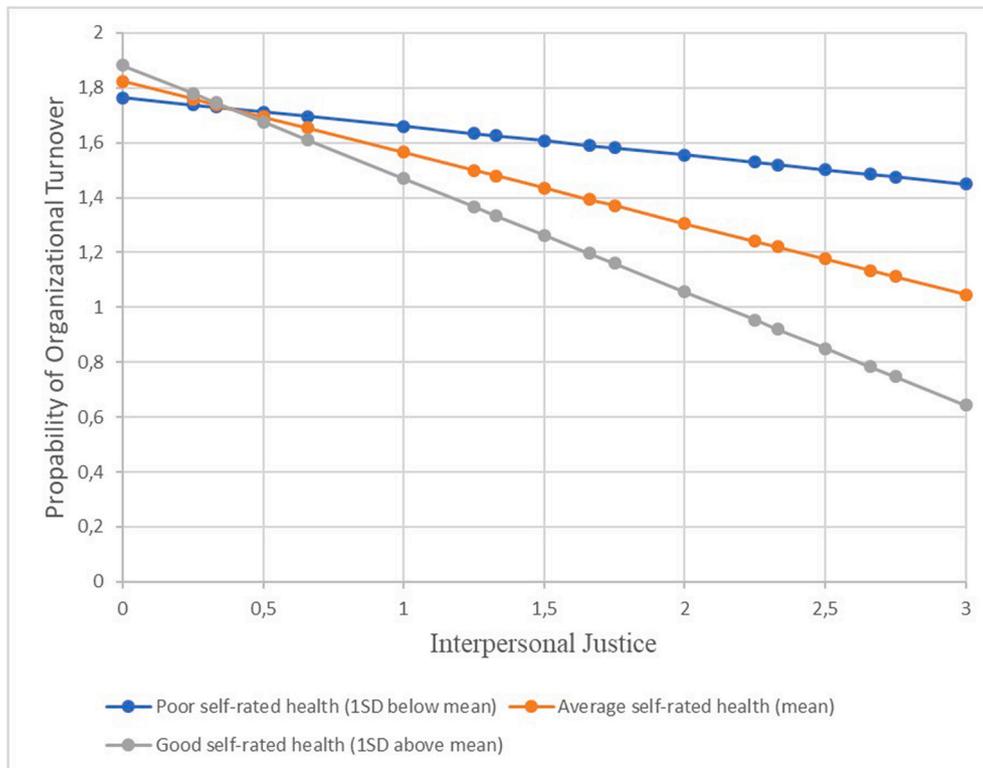


Fig. 2. Association between interpersonal justice and organizational turnover by different self-rated health status.

interpersonal justice and organizational (H4) and group turnover (H6) for those with lower levels of self-rated health. While there was no significant interaction effect for group turnover (unadjusted:  $B = -0.050$ ,  $ns$ ; adjusted:  $B = -0.043$ ,  $ns$ ), we found that self-rated health significantly moderated the within-person association between interpersonal justice and organizational turnover (unadjusted:  $B = -0.162$ ,  $p = .001$ ). Controlling for age, sex, and socioeconomic position did not alter the result much ( $B = -0.121$ ,  $p < .01$ ). While the relationship between interpersonal justice and organizational turnover was rather unaffected by low average levels of self-rated health, a clear negative linear relationship was found among those with high average levels of self-rated health. With increasing interpersonal justice, the probability of organizational turnover decreased sharply. An illustration of the interaction is provided in Fig. 2.

### 3.3.4. Organizational turnover as a predictor of interpersonal justice perceptions after organizational turnover

We expected that having left the previous organization would associate with positive changes in interpersonal justice. After taking into account autocorrelations between interpersonal justice at consecutive time points ( $B = 0.599$ ,  $p < .001$ ), we found that organizational turnover during the past two years was positively related to interpersonal justice ( $B = 0.143$ ,  $p < .001$ ). Adjusting for age, sex, and socioeconomic position did not alter the results ( $B = 0.124$ ,  $p < .001$ ). Thus, Hypothesis 7 was supported.

### 3.3.5. Group turnover as a predictor of interpersonal justice

While we expected that changing workgroups within the organization would relate to positive changes in interpersonal justice, the results did not support Hypothesis 8. Contrary to what we expected, group turnover was negatively associated with interpersonal justice perceptions after the change of workgroup ( $B = -.037$ ,  $p < .001$ ). Controlling for age, sex, and socioeconomic position ( $B = -0.047$ ,  $p < .001$ ) did not alter the results.

## 4. Discussion

In this study, we investigated the association between justice perceptions, health, and actual turnover behavior. Our study adds to previous research, as we did not only investigate the direct effects from justice perceptions and health on group and organizational turnover but also considered self-rated health as a moderator. We also investigated the relationship between group and organizational turnover, and subsequent justice perceptions.

### 4.1. Interpersonal justice and turnover

The first aim of this study was to investigate the prospective association between interpersonal justice perceptions and subsequent turnover. In line with previous findings (Jones and Skarlicki, 2003; Liljegren and Ekberg, 2008; Moon, 2017), our results suggest that low interpersonal justice perceptions predict organizational turnover. Through this, our study also supports and extends previous findings of the effect of different facets of organizational justice on turnover intentions (Hausknecht et al., 2011; Loi et al., 2006; Poon, 2012). Our measure of interpersonal justice is based on a broader conceptualization of interpersonal justice, following suggestions by Bies (2001). Hence, interpersonal justice as measured in this paper taps into concepts related to the social exchange relationship employees form with their supervisor, and, by extension, with their organization. Thus, the findings of this study contribute to the justice literature, but in a wider sense also to the literature on leadership, lending support to the idea that the supervisor is an organizational representative with important reach for the employee and can make a difference for the company's overall turnover rate.

In contrast to our second hypothesis, interpersonal justice was not

related to group turnover. While there is no previous study linking interpersonal justice to group turnover, Fields et al. (2005) found that having less competent and concerned supervision was related to organizational but not group turnover. One possible explanation for our non-significant finding is that group turnover is only possible when the organization is of considerable size and has similar jobs in several workgroups. Given that only about a third of all employees in Sweden work in large (>250 employees) organizations, possibilities for group turnover may have been available to only a small proportion of all study participants. Another reason might be that negative behavior from one's supervisor is seen as the result of a poor organizational climate and poor leadership from upper management. Indeed, such "a trickle-down effect" – that is, the idea that top managers' actions impact line managers' justice perceptions, which, in turn, affect employees' justice perceptions – is well established (Wo et al., 2015). Consequently, employees would not expect more fairness in other workgroups within the organization; thus they choose to leave it altogether rather than simply changing workgroups.

### 4.2. The role of health

While some studies show that those with better health generally succeed better in life (Layard et al., 2014), surprisingly few have investigated the relationship between health and job mobility (Judge and Hurst, 2008). Responding to the call for more studies on the health–job mobility relationship (Liljegren and Ekberg, 2008), we found that individuals' self-rated health had no direct effect on organizational turnover. This is in line with findings from Liljegren and Ekberg (2008) who also found no association between physical health and job mobility. However, as we, Liljegren and Ekberg (2008) analyzed Swedish data and results might be quite different in labor market systems with less protection. Interestingly and against our expectations, we found that individuals were more likely to change workgroups when they perceived under-average self-rated health levels. One possible explanation for this is that the organization might place a person with impaired health into another group in order to better adapt the person's tasks to their capacity. There are high demands on organizations in Sweden to adapt the work when employees need rehabilitation, and employees cannot be easily laid off due to health reasons. Further research is needed to investigate the certainly important influence of health on turnover behavior in different labor market systems.

Finally, we found a positive moderating effect of health on the justice–organizational turnover relationship (see Fig. 2). While the interactive pattern was generally in line with our expectations, the results were still surprising. We expected that, if an individual perceives low interpersonal justice, good self-rated health would be a useful resource when looking for a new job. In contrast, we found that those with lower self-rated health were more likely to change to another organization when experiencing good interpersonal justice. One possible explanation for this could be that supervisors who care for their subordinates might facilitate turnover for employees with health concerns in different ways: both directly, such as by providing information on possible new jobs, and indirectly, for instance by giving energy and hope to subordinates through encouraging words.

### 4.3. Interpersonal justice perceptions after turnover

In the last step, we investigated whether group or organizational turnover improved the job situation and related to increased justice perceptions. In line with our expectations, we found that organizational turnover was positively related to subsequently measured interpersonal justice perceptions. According to Feldman and Ng (2007), three mechanisms may lie behind this association. First, individuals change jobs if their affect is significantly more positive towards the new job than to their current one; that is, they are already more positively minded towards their new job. Secondly, job changers start in the new

organization with high positive expectations of job satisfaction, which might become self-fulfilling prophecies (Barclay et al., 2017). Third, any job change is connected with certain sacrifices, and individuals might evaluate the new job in more positive terms to justify these. Although we were not able to investigate the underlying mechanisms, our results suggest that changing organizations is indeed associated with improved interpersonal justice perceptions.

It is also possible that our findings are based on the so-called “honeymoon effect” (Boswell et al., 2005), which suggests that newcomers have initially higher levels of satisfaction (Boswell et al., 2009). However, according to suggestions from Boswell et al. (2009), such a honeymoon effect rarely lasts longer than six months to one year, after which the new employee will experience a “hangover”. We measured justice perceptions up to two years following the turnover, but many of the study participants may have worked in their new job for only a year or less. Future research is needed to uncover developments in perceptions of justice among newcomers.

We also expected a positive association between group turnover and subsequent interpersonal justice perceptions. In contrast, we found group turnover to be negatively related to interpersonal justice, indicating that those who changed their workgroup within the organization experienced a decrease in interpersonal justice perceptions after this change. Thus, the group turnover might have been involuntary, due to reorganization or restructuring within the organization. Yet, our analyses were unable to control for involuntariness of group turnover.

#### 4.4. Strengths and limitations

Compared to previous research, this study has some considerable strengths. First, we address the important influence of health on the justice–turnover relationship. Until now, health has rarely been considered in the turnover literature. We argue that health is an important component when studying turnover that should not be ignored. One could, of course, question the operationalization of health. However, the self-rated health measure we use in this study has been found to be a stable, valid, and reliable measure of a person’s current health status (Fisher et al., 2016; Idler and Benyamini, 1997; Vie et al., 2014) that relates to important medical outcomes (Miilunpalo et al., 1997). Second, we used a sophisticated methodological approach that allowed us to study associations between justice perceptions and subsequent turnover within individuals. The models we used have the advantage of distinguishing between short-run and long-run effects. The group-mean centering approach adopted here allows to account for fixed effects. In addition, our study is one of few to examine group and organizational turnover as separate phenomena. Finally, while some studies have investigated how job satisfaction developed after turnover, to the best of our knowledge, we are the first to investigate the association between organizational and group turnover on the one hand and interpersonal justice perceptions overtime on the other.

Nevertheless, some limitations need to be addressed. Firstly, we do not know exactly when the turnover happened. Thus, in some cases, the time span between the measure of interpersonal justice and turnover could have been some weeks, while in other cases the time gap might have been as long as nearly two years. Thus, when studying the justice–turnover relationship, we were not able to investigate developments over time. To gain further knowledge on the justice–turnover relationship, studies with closer measurements points are warranted. Also, we did not take into account whether or not the turnover happened voluntarily. It might be that internal turnover was involuntary to a higher extent than external turnover, especially as we focused on employees with permanent contracts but ignored those with more insecure job conditions. Turnover that is based on one’s own decision or that is the result of external circumstances, e.g. reorganization, may indeed produce very different feelings and attitudes towards one’s new workplace. However, while we do not know how many cases of internal turnover were involuntary, we do know that organizational turnover

was mostly voluntary; very few were forced to change organizations against their will (4–7%).

Another limitation is that the measure we used for assessing interpersonal justice is not one of the traditional justice measures, but is a measure originally designed to assess managerial leadership. Still, the included items, in essence, cover the important characteristics of interpersonal justice as suggested by Bies (2001). Last but not least, all the variables investigated here were measured using self-reports. While interpersonal justice is a perception and is meaningful to measure in terms of self-reports, information on turnover could be misleading. Sources for errors are multiple: e.g., people might not remember, although this might be less possible with a rare event such as turnover or, people might misclassify a turnover; for instance, while the merging of two workgroups within an organization might be regarded as group turnover by one person, another person might not think of it this way. To avoid such misclassifications, an objective measure of turnover would be preferable.

## 5. Conclusions

Based on our findings, we conclude that improving or maintaining high interpersonal justice perceptions may be a useful instrument for keeping competence at the workplace and within the organization. Further, organizational turnover seems to improve interpersonal justice perceptions. On the contrary, group turnover is followed by a decrease in interpersonal justice perceptions.

### Credit author statement

Constanze Leineweber: Conceptualization; Methodology, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. Paraskevi Peristera: Methodology, Formal analysis, Visualization. Claudia Bernhard-Oettel: Conceptualization, Methodology, Writing – review & editing. Constanze Eib: Conceptualization, Methodology, Writing – review & editing.

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### Declaration of competing interest

None.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.socscimed.2020.113526>.

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