Disentangling effects of age and career preferences on the relationship between job satisfaction and turnover intention and behavior: An examination in three samples

Dr. Cécile Tschopp; Prof. Dr. Gudela Grote; Nicole Köppel
Organization, Work and Technology Group, Department of Management, Technology, and Economics, ETH Zurich, Switzerland

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Cécile Tschopp and Gudela Grote

ETH Zurich, Switzerland

Nicole Köppel

University of Zurich, Switzerland

Author note

Cécile Tschopp & Gudela Grote, Department of Management, Technology, and Economics, ETH Zurich, Switzerland; Nicole Köppel, Department of Psychology, University of Zurich, Switzerland.

Nicole Köppel, is now at the Federal Department of Defence Civil Protection and Sport, Switzerland.

Correspondence concerning this article should be addressed to Dr. Cécile Tschopp, Department of Management, Technology, and Economics, ETH Zurich, Weinbergstrasse 56/58, CH-8092 Zurich, Switzerland, Telephone: +41 44 632 6148. E-mail: ctschopp@ethz.ch

Abstract

Given the growing concern for managing an aging workforce, the generally lower inclination for voluntary turnover of older employees can be considered good news for companies. However, there is also evidence that certain unsatisfactory working conditions will prompt higher turnover intention among these employees. Our study aimed to disentangle the effects of age-related and age-independent preferences in the relationship between job satisfaction and turnover intention and behavior. We particularly analyzed the role of independent career orientation additionally to age and hypothesized a three-way interaction such that lower job satisfaction would be related to higher turnover intention and behavior for older employees with a stronger independent career orientation. We found support for this hypothesis in two large cross-sectional surveys of employees (Ns = 1416, 1446) and a time-lagged study ($N = 146$) in which actual turnover was measured 3.5 years after the assessment of job satisfaction and career orientation. Our findings add to the aging, career, and turnover literatures by showing that both age-related life stage preferences and relatively age-independent career preferences act together in moderating the relationship between job satisfaction and turnover. We discuss practical implications for HR management regarding employee retention and career counseling.

Keywords: turnover intention, age, job satisfaction, independent career orientation, three-way interaction

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The negative relationship between job satisfaction—conceived as an individual's

"affective attachment to the job viewed in its entirety" (Tett & Meyer, 1993, p. 261)—and

turnover intention—referring to "a conscious and deliberate willfulness to leave the organization"

(Tett & Meyer, 1993, p. 262)—is well established (Dougherty, Bluedorn, & Keon, 1985;

Griffeth, Hom, & Gaertner, 2000; Holtom, Mitchell, Lee, & Eberly, 2008; Joo & Park, 2010; Liu,

Mitchell, Lee, Holtom, & Hinkin, 2012; March & Simon, 1958; Tett & Meyer, 1993; Trevor,

2001). Furthermore, research indicates that turnover intention and actual turnover is lower for

older employees (Arnold & Feldman, 1982; Bal, de Lange, Ybema, Jansen, & van der Velde,

2011; Carless & Arnup, 2011; Ng & Feldman, 2009; Porter & Steers, 1973). Hence, age may also

be a moderator in the job satisfaction-turnover relationship, which was investigated by Finegold,

Mohrman, and Spreitzer (2002). They found that satisfaction with skill development was a more

important predictor of turnover intention for younger employees, while satisfaction with job

security was more important for older employees, which they discussed in terms of different

needs and interests being prevalent in different life stages. These differences are also apparent in

the findings by Kooij and colleagues (Kooij, Guest, Clinton, Knight, Jansen, & Dikkers, 2013;

Kooij, Jansen, Dikkers, & de Lange, 2010), which showed that older employees' positive work

attitudes had a stronger relationship with maintenance-oriented human resource (HR) practices

than with development-oriented HR practices.

Much research has demonstrated, aside from these age effects, the impact of individual

differences in needs and interests—independent of age—on job satisfaction, turnover, and the

relationship between the two (Holtom et al., 2008; Judge & Bono, 2001; Tschopp, Grote, &

Gerber, 2014; Zimmermann, 2008). Finegold et al. (2002) suggested that their results reflect joint

effects of age and career orientations—that is, individuals' preferences for particular career-

related opportunities, circumstances, and/or career paths (Gerpott, Domsch, & Keller, 1988)—but no measure of career orientation was included in their study. Rather, Finegold et al. (2002) assumed that a "protean" career orientation, defined as pursuit of a self-directed career based on one's own personal values (Briscoe, Hall, & Frautschy DeMuth, 2006; Hall, 2002), was prevalent in their sample of highly educated technical workers.

The aim of our research was to disentangle the impact of age and age-independent career preferences in the relationship between job satisfaction and turnover. For this purpose, we conducted two studies based on three samples, which included individuals from a variety of occupations. The first study used two large cross-sectional datasets, and the second study contained a time-lagged design with two data collections separated by an interval of three-and-a-half years. Our finding that age and career orientation jointly impact the job satisfaction-turnover relationship can be considered an important contribution from several perspectives. First, it adds to the aging and career literatures by demonstrating the relevance of both life-stage-related preferences and relatively age-independent career preferences. Second, we provide insights relevant for turnover research, answering the general call for more attention to individual differences (e.g., Zimmerman, 2008) as well as addressing more specific concerns related to the relevance of age compared to other individual differences in influencing turnover intention and behavior (Ng & Feldman, 2009; Peltokorpi, Allen, & Froese, 2015).

Age Effects on the Job Satisfaction-Turnover Link

Previous research has shown that both the intention to quit one's job and actual turnover decrease with age (Arnold & Feldman, 1982; Bal et al., 2011; Carless & Arnup, 2011; Ng & Feldman, 2009; Porter & Steers, 1973). Several theoretical reasons are proposed in the literature to explain these findings: Eberhardt, Pooyan, and Moser (1995) argue that older employees may remain in a job even in uncomfortable times because of their strong commitment to their organization. Moreover, older employees may have experienced stereotyping regarding decreased

work performance, learning ability, and increased health risk (von Hippel, Kalokerinos, & Henry, 2013) and have lower expectations of finding alternative employment because of limited employability (Froehlich, Beausaert, & Segers, 2014). Ng and Feldman (2009) discuss further arguments derived from age-related psychosocial changes to explain why older employees are less likely to voluntarily leave a job than younger employees. Emotion regulation has been found to improve with age (Charles & Carstensen, 2007). Older individuals are more able to achieve and maintain high levels of positive affect and low levels of negative affect. Therefore, older employees are assumed to cope better with the experience of dissatisfying situations at work. Furthermore, needs and goals are assumed to change with age (Kanfer & Ackermann, 2004). Older employees strive for familiar, longer-standing relationships and therefore are more likely to remain in their job to maintain these relationships. Also, older employees' goal orientations presumably differ from those of younger employees based on the general finding that younger adults have a higher motivation to fulfill growth needs, while middle-aged and older adults strive to maintain acceptable situations and prevent loss (Ebner, Freund, & Baltes, 2006). This should result in a lower intention to change a job, especially if the social situation is acceptable. These arguments lead to the hypothesis that even in situations of low general job satisfaction, older employees' turnover intention remains moderate.

Hypothesis 1. Age moderates the negative relationship between job satisfaction and turnover intention/behavior such that the relationship is weaker for older individuals.

Independent Career Orientation as an Additional Moderator

Several authors have attempted to further specify both the processes underlying the negative relationship between age and turnover and the buffering effect of age on the negative relationship between job satisfaction and turnover. In their meta-analysis, Ng and Feldman (2009) found that the impact of age on turnover was stronger for samples with minorities and individuals with lower education, which most likely is related to the apprehensions regarding

employability discussed above. Additional processes that refer to age-related employment preferences have been suggested by Finegold et al. (2002), who argued for life-stage-related preferences, such as the differential importance of job security and work-life balance, and career-stage-related preferences, such as the differential importance of skill development and advancement. They found mixed support for the career-stage-related hypotheses, which they explain with—unmeasured—age-independent preferences for a protean career orientation (Briscoe et al., 2006; Hall, 2002). In their sample of highly educated engineers and scientists, the presumed strong desire for a self-directed and value-driven career was supposed to lead to highly valuing skill development and career advancement all through working life. Arguing from a life-stage perspective based on the selection, optimization, and compensation (SOC) theory (Baltes, Staudinger, & Lindenberger, 1999), Kooij and colleagues (Kooij et al., 2013; Kooij et al., 2010) have also posited age-related differences in the importance of what they called development (e.g., training) and maintenance (e.g., performance appraisal) HR practices. In the more diverse samples Kooji et al. (2013) studied, older employees' job satisfaction and commitment were indeed influenced more by maintenance HR practices and less by development HR practices (turnover was not analyzed). Finally, focusing on differences in employment-related preferences based not on age but on different career orientations, Chang, Choi, and Kim (2008) found that R&D professionals with a higher cosmopolitan orientation—expressed by a strong commitment to specialized role skills and a preference for professional rather than organizational reference groups (Gouldner, 1957)—were more likely to leave the organization. Additionally, Tschopp et al. (2014) showed that career orientation moderated the relationship between job satisfaction and turnover intention. Overall, the existing evidence points to both age-related and age-independent employment preferences that influence turnover and the job satisfaction-turnover relationship. In order to disentangle these different influences, we now turn to a more detailed consideration of career preferences.

Contemporary career research has emphasized a general shift from traditional company-led careers to more self-directed, value-driven, and boundary-crossing career trajectories (Arthur & Rousseau, 1996; Briscoe et al., 2006; Hall, 2002). An independent career orientation, characterized by the desire to follow these more self-directed, value-driven, and boundary-crossing career trajectories, has been found in individuals across all age groups and, as Briscoe et al. (2006) showed, may even become more prevalent with age for knowledge-based workers. Individuals who take on responsibility for their career and use their own values as guidance are less likely to remain in a dissatisfying job; instead they are continuously searching for the best fit between their values and their job, which is expressed in a generally high turnover intention (Gerber, Wittekind, Grote, & Staffelbach, 2009). Tschopp et al. (2014) found that, compared to individuals with other career orientations those with an independent career orientation—operationalized by a preference for employability rather than job security, a commitment to one's own career rather than to the organization, and a desire for career self-management and advancement (Gerber, Wittekind, Grote, Conway, & Guest, 2009)—not only had a generally higher turnover intention but also reacted with a greater increase of turnover intention in the case of job satisfaction decline. In this study, age was included as a control variable, which was negatively related to turnover intention but not to the change in turnover intention, leaving open the question of how age and career orientation might interact in predicting turnover. Based on turnover theory (cf. Holtom et al., 2008), expectancy-valence theory (Vroom, 1964), and SOC theory (Baltes et al., 1999), we argue that an independent career orientation may function as an antagonist to age in the job satisfaction-turnover relationship. Desirability of movement and ease of movement are two basic building blocks in most turnover models, and these factors are affected differently by age and independent career orientation. While with age, both desirability and ease of movement have been found to decline (e.g., Ng & Feldman, 2009), an independent career orientation is characterized by a preference for changing organizations, rather than

remaining in one organization for a long time, and by high perceived employability (Gerber, Wittekind, Grote, & Staffelbach, 2009). Within the framework of expectancy-valence theory, one can assume that older employees may overcome their hesitance toward voluntary turnover, stemming from the low expectancy of finding alternative employment, by focusing on the highly valued goal of finding a job situation that permits self-directed and value-driven career development. Finally, from the perspective of SOC theory, the usually found age-related change in focus—from striving for gains to preventing losses (Ebner et al., 2006, Freund, 2006) —may be counteracted by the emphasis on striving for gains embedded in an independent career orientation. Thus, we state that the negative relationship between job satisfaction and turnover intention will be weaker with increasing age only for employees with a weaker independent career orientation.

Hypothesis 2. Independent career orientation will moderate the two-way interaction between job satisfaction and age on turnover intention/turnover, such that the two-way interaction will be stronger when independent career orientation is weaker versus stronger. That is, job satisfaction and turnover intention/turnover will have the weakest relationship when individuals' age is higher and independent career orientation is weaker.

We decided to focus on the independent career orientation and not develop hypotheses for other career orientations as well. The independent career orientation most strongly runs counter the assumptions of life stage models for career preferences of older individuals. Hence, we considered an analysis of age-independent effects of this career orientation as a particularly good test for our supposition that age should not be taken as a proxy for career preferences of older employees. Other career orientations, especially those that entail preferences for job security or work-life balance, follow assumptions of life stage models more and therefore were considered less relevant for the current purpose.

We conducted two studies to test our hypotheses. Study 1 was based on two independent large samples collected two years apart and with different methods of data collection (an online survey and a mixed method design consisting of an online survey and telephone interviews). Study 2 examined actual job change with a time-lagged design. The second measurement happened three-and-a-half years after the first. Together, the two studies provide the prerequisites for a robust test of our hypotheses.

Study 1

Method

Procedure and samples.

The data were taken from a regularly conducted representative survey in Switzerland for the years 2010 and 2012. To ensure representativeness, in 2010, a professional social research institute drew a stratified random sample based on the criteria age, gender, and language from their large online panel, and the data were collected with an online survey until the predefined quotas for each combination of criteria were achieved. In 2012, a random sample was drawn by the Swiss Federal Statistical Office, and a mixed-method design was used; that is, participants could choose between answering the survey online, in a telephone interview, or on paper. In both samples, only participants working for at least 40% of a full-time schedule were included in the data collection. Due to considerations of representativeness a sample size of 1400 was aimed at and data collection stopped right after this objective had been achieved.

In 2010, 11 out of 1479 participants were excluded from the analysis due to missing data on construct level (partial response: 0.7%; Newman, 2014). Thus, the final sample contained 1468 respondents (59.1% male). The participants' mean age was 40.2 ($SD = 11.1$ years, range: 19–65 years), and their mean organizational tenure was 9.5 years ($SD = 9.7$ years). About 32.7% of the participants held at least a Bachelor's or equivalent degree.

In 2012, the final sample consisted of 1455 employees (55.0% male) after the exclusion of 25 participants due to missing data on construct level (partial response: 1.7%; Newman, 2014). The participants' mean age was 41.1 (*SD* = 12.7 years, range: 17–65 years), and they had spent a mean of 9.8 years (*SD* = 9.9 years) with their current employers. About 25.5% of the participants held at least a Bachelor's or equivalent degree.

Measures.

Dependent variable. For the 2010 survey, turnover intention was measured with the German translation (Gerber, Wittekind, Grote, & Staffelbach, 2009) of two items developed by Guest and Conway (2004). The first item was "How likely is it that you will voluntarily leave this organization in the following year?" with a response scale from 1 (very unlikely) to 4 (very likely). The second item contained four statements expressing increasing levels of turnover intention (e.g., Level 1: "I have never even thought about leaving this job." Level 4: "I am currently in the process of trying to leave this job."). The respondents had to choose the statement that applied best to them. The internal reliability Cronbach's Alpha was .70. For the survey in 2012, we changed the measurement of turnover intention to the more commonly used three-item measure from Bozeman and Perrewé (2001). An example item is "I will probably look for a new job in the near future." We used a response scale from 1 (strongly disagree) to 5 (strongly agree). The internal reliability Cronbach's Alpha was .70.

Independent variable. Job satisfaction was measured with a single item ("How satisfied are you with your job?") on a 10-point Likert scale (1 = not at all satisfied; 10 = extremely satisfied). Single-item measures of overall job satisfaction have been shown to be reliable, valid, and comparable to scale measures (Wanous & Hudy, 2001; Wanous, Reichers, & Hudy, 1997), and these single-item measures are frequently used (e.g., Chen, Ployhart, Cooper Thomas, Anderson, & Bliese, 2011; Felfe, Schmook, Schyns, & Six, 2008; Rottinghaus, Hees, & Conrath, 2009; Ybema, Smulders, & Bongers, 2010).

Moderators. Age was measured in years. Independent career orientation was measured by

the assignment probability for having an independent career orientation (cf. Gerber, Wittekind,

Grote, & Staffelbach, 2009). In line with the method developed by Gerber, Wittekind, Grote, and

Staffelbach (2009), the participants rated nine statements developed by Guest and Conway (2004)

on a 4-point scale[1] (e.g., "A short time in lots of organizations" versus "A long time with one

organization"). The statements were introduced by the following question "Looking ahead at

your work life, where would you assess yourself between these two poles?" The answers were

dichotomized and subjected to latent class analysis (LCA) analogous to the procedure used by

Gerber, Grote, Geiser, and Raeder (2012). In the analyses performed to test our hypotheses, we

used the assignment probability for an independent career orientation, which indicates the degree

of certainty that the independent career orientation represents an individual's dominant career

orientation. We used the assignment probability rather than the assignment to the career type

because this continuous variable permitted the complex regression analyses needed to test for the

hypothesized three-way interaction.

We ran all statistical models with several control variables (gender, education level,

managerial position) that have been found relevant in related research (e.g. Gerber, Wittekind,

Grote, & Staffelbach, 2009; Kooij et al., 2013; Tschopp et al., 2010). We compared the results of

these analyses with those obtained without control variables and found no meaningful

differences. Following Breaugh's (2008) caution against using statistical controls, we therefore

decided to report the results obtained without inclusion of control variables.

Results

The means, standard deviations, and correlations among the study variables for Samples 1

and 2 are presented in Table 1. Our hypotheses were tested with hierarchical regression analyses

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[1] A 4-point scale was chosen instead of the original binary scale to allow respondents
some decision latitude in this forced-choice format.

in both samples. The independent variable and the moderators were mean centered. Hypothesis 1 states that age moderates the negative relationship between job satisfaction and turnover intention, such that the relationship is weaker for older employees. As shown in Table 2 and 3, the interaction effect of job satisfaction and age had a significant positive effect on turnover intention in Samples 1 ($\beta = .10$, $p < .001$) and 2 ($\beta = .05$, $p < .05$). To determine the direction of the significant interaction effects, the examined simple slope of turnover intention, regressed on job satisfaction at low and high age (one standard deviation below and above the mean), is plotted in Figures 1 and 2. Job satisfaction had a weaker negative effect on turnover intention for employees with high (vs. low) age, while all slopes remained significantly different from zero (Sample 1: Slope young age = $-.27$, $t = -19.19$, $p < .001$ and slope old age = $-.18$, $t = -12.60$, $p < .001$; Sample 2: Slope young age = $-.35$, $t = -19.28$, $p < .001$ and slope old age = $-.29$, $t = -15.35$, $p < .001$). Thus, we found support for Hypothesis 1.

---Insert Table 1, 2, & 3 and Figure 1 & 2 about here---

Hypothesis 2 predicted that the buffering effect of age on the relationship between job satisfaction and turnover intention would be mitigated by a stronger independent career orientation. As shown in Table 2 and 3, we found that the interaction of independent career orientation, age and job satisfaction was statistically significant in Sample 1 ($\beta = -.11$, $p < .001$) and 2 ($\beta = -.05$, $p < .05$), above and beyond the influence of main effects and two-way interactions. We plotted the significant three-way interactions between job satisfaction, age, and independent career orientation in relation to turnover intention in Figures 3 and 4. As these figures show, the relationship between job satisfaction and turnover was more negative for older employees with a stronger independent career orientation than for older employees with a weaker independent career orientation.

---Insert Figure 3 & 4 about here---

To further examine these three-way interactions, we examined the simple slopes and differences in slopes by using the procedure proposed by Dawson and Richter (2006). As shown in Table 4, all slopes were negative and significantly different form zero, indicating a negative relationship between job satisfaction and turnover intention. This negative relationship between job satisfaction and turnover intention, however, differed between the different combinations of moderators as predicted in Hypothesis 2. Namely, for older employees with a stronger independent career orientation, the slope was more negative than for older employees with a weaker independent career orientation. Moreover, Dawson and Richter's (2006) tests revealed that the slope for older employees with a stronger independent career orientation was not significantly different from the slopes of younger employees with either a stronger or a weaker independent career orientation. In other words, in support of Hypothesis 2, for employees with a stronger independent career orientation, the buffering effect of higher age on the negative relationship between job satisfaction and turnover intention was attenuated.

---Insert Table 4 about here---

Discussion

The findings of Study 1 support both hypotheses: Compared to that of younger employees, older employees' job satisfaction was less negatively related to their turnover intention, and this buffering age effect only held for employees with a weaker independent career orientation. While Study 1's strength lies in the examination of the hypotheses in two independent samples, its main limitations are that no actual turnover was assessed and that job satisfaction and turnover intention were measured at the same point in time. Therefore, the direction of causality was undetermined. We addressed these limitations in Study 2, in which we measured job satisfaction and actual turnover three-and-a-half years apart. The data obtained in Study 2 allowed to test whether and how job satisfaction, age, and career orientation predict actual turnover at a later point in time. The sample used in Study 2 was smaller but drawn with a

procedure comparable to those of Study 1 to minimize the risk of attributing the results to sample characteristics. A general discussion of the results of both studies will follow after the presentation of Study 2.

Study 2

Method

Procedure and sample.

All participants from a prior longitudinal study (Tschopp et al., 2014) with the last data collection wave in 2009 ($N = 255$) were invited three-and-a-half years later to take part in a short follow-up survey (either online or by telephone interview). In consideration of the current organizational tenure in Switzerland—42% of the working population in Switzerland has an organizational tenure of less than 5 years (SLFS, 2014)—the chosen interval of three-and-a-half years was thought to allow observation of sufficient numbers of actual turnover. This data collection was completely independent from that of Sample 2 in Study 1, and it took place at the end of 2012. The original sample in the longitudinal study was a representative sample of employees in Switzerland working at least 40% of a full-time contract.

In total, 160 participants[2] answered the follow-up survey, representing a response rate of 63% at Wave 2. We removed 14 participants from the data set because of retirement ($n = 7$), unemployment ($n = 1$), or missing data on turnover ($n = 3$; partial response = 1.2%; Newman, 2014). The effective sample size for the current study, therefore, was 149 (full response = 58%). For the assessment of attrition bias, all predictor variables as well as socio-demographic variables (gender, education, organizational tenure, managerial position) were entered in a logistic regression analysis predicting the probability of being included in the effective sample (Goodman & Blum, 1996). Non-random sampling was only observed for education: Respondents with a

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[2] The 95 people who dropped out included 27 people whose contact address was invalid, one person who passed away, and 67 people who were not interested in taking part in the survey.

Bachelor's or equivalent degree were more likely to belong to the final sample ($B = .70$, $p < .05$,

$OR = 2.01$) than respondents with a lower level education. Given that individuals with an

independent career orientation tend to be better educated, this could have led to an attrition effect,

but the analysis indicates that this was not the case as independent individuals were not more

likely to belong to the final sample. Furthermore, there were no significant differences between

non-respondents and respondents excluded from the sample ($n = 106$) and the final sample ($n =$

149) in terms of the study variables and the socio-demographic variables, except that the

respondents in the final sample ($M = .41$, $SE = .49$) had significantly more often a Bachelor's or

equivalent degree than the participants not included in the final sample ($M = .26$, $SE = .44$; $t(253)$

$= –2.42$, $p < .05$).

The average age of the 149 participants included in the effective sample was 44.0 years

($SD = 8.4$, range: 25–61 years). Fifty-eight percent of the participants were male. Average

organizational tenure at Wave 1 was 12.5 years ($SD = 9.5$ years). About 41% of the participants

held at least a Bachelor's or equivalent degree. Job-changers had a mean age of 40.0 ($SD = 8.9$,

range: 25–61 years), whereas the mean age of employees remaining in their jobs was 45.0 years

($SD = 8.0$, range: 26–61 years).

Measures.

Wave 1. Job satisfaction, age, and independent career orientation, were measured as in

Study 1 except for the career orientation response scale. The rating of the nine statements was

conducted by means of a forced choice of one of the two contrasting options (cf., Gerber,

Wittekind, Grote, & Staffelbach, 2009) and assignment probabilities were computed by a latent

transition analysis (Tschopp et al., 2014).

Wave 2. Turnover was coded from the information regarding employer changes during

the past three-and-a-half years as well as the indication of voluntariness and reasons for these

changes. A turnover was coded if participants had changed employers voluntarily ($n = 30$).

Involuntary employer change was not coded as a turnover because this change might not be related to low job satisfaction.

As in Study 1, the statistical models were run with and without the control variables gender, education level, and managerial position. Again, no meaningful differences were found and accordingly, results obtained without inclusion of control variables are reported.

Results

Table 5 shows the means, standard deviations, and correlations among the variables of Study 2. Due to turnover being a binary variable, a hierarchical logistic moderated regression analysis was conducted with mean centered input variables. As can be seen from Table 4, there was no significant correlation between job satisfaction and turnover. Also, as shown in Table 6, there was no significant interaction effect of job satisfaction and age on turnover ($B = -.02$, $p > .05$, $OR = 0.99$). Thus, Hypothesis 1 was not supported.

<div align="center">---Insert Table 5 & 6 about here---</div>

The three-way interaction between job satisfaction, age, and independent career orientation was significant ($B = -.75$, $p < .05$, $OR = 0.47$). We plotted the interaction to see whether the effects were in the predicted direction. Figure 5 and the corresponding slope analysis depicted in Table 7 indicate that older employees with stronger independent career orientation show a more negative relationship between job satisfaction and turnover than all other combinations between age and independent career orientation. Thus, the results provide support for Hypothesis 2.

<div align="center">---Insert Table 7 and Figure 5 about here---</div>

Discussion

In Study 2, we found no support for Hypothesis 1. This might be due to the long time frame of three-and-a-half years between the two waves of measurement, which we had chosen in order to capture a significant amount of turnover given that employees in Switzerland do not

change jobs very frequently. This clearly added many uncontrolled influences, though. We did find support for Hypothesis 2 concerning the interaction between job satisfaction, age, and independent career orientation in affecting turnover despite this long time frame, which can be seen as strengthening our finding that the job satisfaction-turnover link was more negative for older employees with a stronger independent career orientation.

General Discussion

The demographics of the global labor force are changing, particularly with an increase of older employees in the labor force, which brings new research questions (Alley & Crimmins, 2007). Due to companies' need to cater to an aging labor force, the importance of understanding older employees' job-related norms, attitudes, and behavior is increasing, especially in situations of dissatisfying jobs, which are commonly related to an increase in turnover intention and actual turnover. Our research was designed to extend existing evidence concerning age effects on the well-known negative relationship between job satisfaction and turnover (Griffeth et al., 2000; Holtom et al., 2008; Joo & Park, 2010) by testing the impact of career orientation as an additional moderator. Based on theoretical considerations and prior findings (e.g., Arnold & Feldman, 1982; Finegold et al., 2002; Ng & Feldman, 2009; Porter & Steers, 1973; Tschopp et al., 2014), we hypothesized that an independent career orientation reduces the moderating effect of age in the job satisfaction-turnover relationship. Indeed, according to our results, when compared to younger employees, older employees with a stronger independent career orientation have a similarly strong intention to quit a less-satisfying job. Compared to older employees with a weaker independent career orientation, older employees with a stronger independent career orientation more frequently change less satisfying jobs. With respect to the more general question of the relative impact of age and age-independent employment preferences on turnover, which motivated our research, we could thus show that an independent career orientation can counteract age effects on turnover intention and behavior. However, significant negative correlations

between age and independent career orientation in two of the three samples also indicated that career preferences are not fully unrelated to age.

Theoretical and Practical Implications

Our results have implications for theory and research in the fields of aging, careers and turnover. In the ongoing discussion about the implications of demographic change, age differences in job-related needs and attitudes have been central (Ng & Feldman, 2009; Rhodes, 1983; Shultz, Wang, Crimmins, & Fisher, 2010; Truxillo, Cadiz, Rineer, Zaniboni, & Fraccaroli, 2012; Zaniboni, Truxillo, Fraccaroli, McCune, & Bertolino, 2014). However, to the best of our knowledge, individual differences in career preferences have not been studied in relation to an aging workforce. Frequently, age is taken as an indication of a particular life/career stage with certain needs and interests attached, without explicitly testing this assumption (e.g., Finegold et al., 2002; Lam, Ng., & Feldman, 2012; Pogson, Cober, Doverspike, & Rogers, 2003). The first contribution of the current research is to show, by combining an aging and career perspective, how career preferences, age, and job satisfaction together influence turnover intention and behavior. Thus, the relevance of integrating two previously separate research strands concerning age and turnover (Finegold et al., 2002; Ng & Feldman, 2009; Rhodes, 1983) and career and turnover (Chang et al., 2008; Tschopp et al., 2014) has been demonstrated.

A second contribution concerns the knowledge gained about the relative importance of age and career preferences in predicting turnover intention and actual turnover. Our results emphasize that an independent career orientation can counteract the buffering effect of age on the negative relationship between job satisfaction and turnover, pointing to the possibility of more promotion-focused behavior by older individuals than is usually assumed in life span theories (Baltes et al., 1999; Ebner et al., 2006). This implies that although careers and underlying needs may develop alongside general aging processes, as life stage theories suggest (Levinson, Darrow,

Klein, Levinson, & McKee, 1978; Super, 1980), career preferences have a significant effect on turnover intention and actual turnover above and beyond age.

Third, our findings provide insights for turnover research, especially by addressing concerns related to the relevance of age compared to other individual differences in influencing turnover intention and behavior (Ng & Feldman, 2009; Peltokorpi et al., 2015). We found that the effect of desirability of movement, captured by job (dis)satisfaction in the original turnover process models (e.g., Mobley, Griffeth, Hand, & Meglino, 1979; Mobley, Horner, & Hollingsworth, 1978), was attenuated by age and intensified by an independent career orientation, presumably in connection with the second component of turnover process models: ease of movement. Independent career orientation has been found to be related to high levels of perceived employability (Gerber, Wittekind, Grote, & Staffelbach, 2009), while a negative relationship between age and perceived employability is generally found (Froehlich et al., 2014). However, ease of movement was not measured explicitly, neither in terms of perceptions nor in terms of actually existing opportunities, opening an important avenue for future research.

Practically, our results have implications both for HR management in companies and for career counseling. Older employees may be more interested in and able to change jobs than previously assumed. Instead of taking on a generic life-stage perspective, employees' specific career preferences need to be considered, and these are only partially determined by age. This opens up new opportunities for older employees but also signals to companies that they cannot take older employees' loyalty to the company for granted. Retaining an aging work force might therefore be more challenging than is generally discussed.

Limitations and Future Research

There are several limitations associated with our research. First, the scope of our data is limited by our reliance on self-reports. This way of measurement increases the risk of common method bias. To counteract this risk, we used a time-lagged design in Study 2 (Podsakoff,

MacKenzie, Lee, & Podsakoff, 2003). Second, our measures partly relied on short scales: job satisfaction was measured with a single item and turnover intention was in one case measured with only two items. It can be assumed that our results would have been strengthened by using multi-item scales. However, prior research has shown single-item measures of job satisfaction to be useful and appropriate in organizational research, especially when overall job satisfaction is of interest as in our study (Wanous & Hudy, 2001; Wanous et al., 1997). Furthermore, measuring turnover intention with two (versus three) items in Study 1 did not result in different internal consistencies, and no relevant differences in the results could be detected. Finally, we corroborated the findings of Study 1 on turnover intention by looking at actual turnover in Study 2, whereby the risk of biased information was reduced (Bal et al., 2011). Third, the sizes of the moderator effects were small and should be interpreted with caution. Small effect sizes are, however, a frequent problem in moderated multiple regression analyses (Aguinis, 1995). A review of field studies indicated that interaction terms typically account for 1 to 3% of the variance (Chaplin, 1991). Fourth, the data we reported on were all collected in Switzerland, a country with a very prosperous and stable economy, which on the one hand seems to induce very stable employment relationships with generally high job satisfaction and low turnover rates, but on the other hand also provides good opportunities for employment, which enhance chances for successful turnover once turnover is desired. This may be a context, therefore, where employees remain more growth-oriented longer, which is an important limitation for the generalizability of our results. Fifth, we focused on one career orientation only, which we chose because it is prevalent in career research and also because the most antagonistic effects vis-à-vis age could be expected. Clearly, other career orientations might interact differently with age in affecting job satisfaction, turnover, and the relationship between the two.

We see four particularly promising avenues for further research. First, following up on the last limitation mentioned, it would be very worthwhile to investigate the impact of other career

orientations on the relationships between job satisfaction, turnover, and age. Besides the independent career orientation, a promotion-focused, loyalty-focused, and disengaged orientation have been distinguished (Gerber, Wittekind, Grote, & Staffelbach, 2009), each with distinct patterns of interests and preferences attached to them that prompt different reactions to job satisfaction (Tschopp et al., 2014). Each of these orientations may also relate to life stages differently. While we showed that an independent career orientation appears to counteract the buffering effect of age on the negative relationship between job satisfaction and turnover, other career preferences such as a loyalty-focused orientation might even strengthen that effect. Demonstrating such diverse effects would corroborate our argument that career preferences impact the job satisfaction-turnover relationship independent of age and thus act as an additional moderator as hypothesized and not as a mediator. With our own data the required analyses were not possible due to the particular way in which independent career orientation was measured. We used the assignment probabilities generated from latent class analyses, with a low assignment probability for one class implying high assignment probabilities for one or more of the other three classes (Gerber, Wittekind, Grote, & Staffelbach, 2009). Hence, our findings concerning the independent career orientation imply effects for the other three career orientations as well without being able to disentangle these three orientations, though. In addition, it is necessary to learn more about the specific reasons for lower satisfaction and higher turnover intention and behavior across age groups and career orientation types. For instance, it is conceivable that some older employees change jobs not based on a growth orientation, which is implied by the independent career orientation we focused on in the current research, but because they are searching for a job that allows them to better optimize and compensate for decreasing skills and abilities.

Second, more longitudinal studies would be valuable to investigate the stability of job satisfaction and turnover intention at different life stages. To date, we know that turnover intention changes along with fluctuating levels of job satisfaction (Chen et al., 2011) and that

individual differences in career orientation affect this adaptation (Tschopp et al., 2014). We also know that independently oriented employees generally have higher turnover intention (Gerber, Wittekind, Grote, & Staffelbach, 2009). What is still lacking is an investigation of the stability (versus adaptability) of employees' turnover intention in connection with different career orientations across the life span. The different buffering and strengthening effects may work differently for different age groups. Knowing more about such differences would be very useful theoretically—in order to disentangle age-related and age-independent effects on turnover intention and behavior even further—and practically—for more age-conscious human resource management practices.

Third, another direction for future research involves the exploration of additional turnover-related outcomes, such as job search behavior. Griffeth et al. (2000) showed in their meta-analysis that job search behavior is an even better predictor of turnover than turnover intention. While turnover intention implies general withdrawal cognitions, job search behavior comprises more specific activities such as time and/or effort spent for job search preparation (e.g., preparing a résumé and collecting potential job information from relatives or colleagues) and/or active job search behavior (e.g., mailing out résumés and calling prospective employers; Blau, 1993; Griffeth et al., 2000). Job-search-related activities might vary more strongly between different career orientations than do general cognitions related to turnover intention. For instance, independently oriented employees may show more diverse job search activities because of their distinct tendency to manage their careers themselves. A more systematic exploration of different kinds of job search behavior across different ages would be interesting, as one might assume that age relates differently to job and organizational mobility (Ng & Feldman, 2007).

Finally, explicitly considering both desirability of movement and ease of movement would provide further insights into the assumed mediating processes for the interaction between job satisfaction, age, and career orientation. For ease of movement, it would also be very useful

to measure perceptions as well as actual opportunities for finding alternative employment. This would permit to study the malleability of life stage effects on work attitudes and behavior, for instance in terms of situational and personal influences on SOC strategies independent of a person's chronological age (Baltes et al., 1999; Ebner et al., 2006).

In conclusion, the current study demonstrates that besides age as a proxy for life and career stages, an individual's career preferences constitute an important factor to consider for a comprehensive understanding of career behavior in the aging workforce. This finding helps reconcile inconsistent findings from previous research on the role of age in the job satisfaction-turnover relationship and opens up a number of new avenues for research. For HR practice, the study points to the need for firms to carefully balance calls for more independent careers and retention not only for younger employees, for whom this issue is much debated already, but also for older employees, who are also not necessarily prepared to stay in their jobs at any cost.

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Table 1. Descriptive statistics and Pearson correlations in Study 1.

Variables	Sample 1						Sample 2				
	M	*SD*	1	2	3		*M*	*SD*	1	2	3
1. Job satisfaction	7.61	1.74					7.39	1.78			
2. Age	40.24	11.09	.11**				41.11	12.75	.06*		
3. Independent CO	.20	.28	−.11**	−.18**			.21	.29	−.05*	−.28**	
4. Turnover intention	1.81	0.80	−.53**	−.18**	.19**		2.26	1.10	−.54**	−.23**	.21**

Note: $N_{Sample\ 1}$ = 1468. $N_{Sample\ 2}$ = 1455. CO = career orientation.

* $p < .05$. ** $p < .01$.

Table 2. Multiple regression analysis for predicting turnover intention in Study 1, Sample 1.

Predictor	Model 1			Model 2			Model 3		
	b (*SE*)	β	*t*	*b* (*SE*)	β	*t*	*b* (*SE*)	β	*t*
Job satisfaction (JS)	−.23 (.01)	−.50	−22.72***	−.23 (.01)	−.49	−22.52***	−.24 (.01)	−.51	−23.09***
Age (years)	−.01 (.00)	−.10	−4.61***	−.01 (.00)	−.11	−4.72***	−.01 (.00)	−.11	−5.15***
Independent CO	.32 (.06)	.11	5.07***	.32 (.07)	.11	4.90***	.35 (.07)	.12	5.35***
JS x age				.00 (.00)	.10	4.36***	.00 (.00)	.10	4.56***
JS x independent CO				−.08 (.03)	−.05	−2.25*	−.11 (.03)	−.08	−3.31***
Age x independent CO				.01 (.01)	.05	2.22*	.01 (.01)	.04	1.81
JS x age x independent CO							−.01 (.00)	−.11	−4.46***
Total R^2 (ΔR^2)	.30 (.30***)			.32 (.02***)			.33 (.01***)		
F	212.12 (3, 1463)***			113.17 (6, 1461)***			101.10 (7, 1460)***		

Note: N = 1468. CO = career orientation. [a]0 = female, 1 = male. [b]0 = low education, 1 = high education. [c]0 = no managerial position, 1 = managerial position.

* *p* < .05; *** *p* < .001.

Table 3. Multiple regression analysis for predicting turnover intention in Study 1, Sample 2.

Predictor	Model 1			Model 2			Model 3		
	b (SE)	β	t	b (SE)	β	t	b (SE)	β	t
Job satisfaction (JS)	−.32 (.01)	−.52	−24.45***	−.32 (.01)	−.52	−24.34***	−.33 (.01)	−.53	−24.24***
Age (years)	−.01 (.00)	−.16	−7.15***	−.01 (.00)	−.16	−7.19***	−.01 (.00)	−.16	−7.24***
Independent CO	.53 (.09)	.14	6.23***	.55 (.09)	.14	6.10***	.56 (.09)	.15	6.22***
JS x age				.00 (.00)	.05	2.21*	.00 (.00)	.05	2.15*
JS x independent CO				−.09 (.05)	−.05	−2.04*	−.13 (.05)	−.06	−2.66**
Age x independent CO				.01 (.01)	.03	1.42	.01 (.01)	.03	1.35
JS x age x independent CO							−.01 (.00)	−.05	−2.21*
Total R^2 (ΔR^2)	.34 (.34***)			.35 (.01**)			.35 (.00*)		
F	255.00 (3, 1451)***			130.59 (6, 1448)***			112.93 (7, 1447)***		

Note: $N = 1455$. CO = career orientation. [a]0 = female, 1 = male. [b]0 = low education, 1 = high education. [c]0 = no managerial position, 1 = managerial position.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4. Test of simple slopes and pairwise slope comparisons for three-way interactions in Study 1.

Pairs of comparison	Sample 1: Turnover intention		Sample 2: Turnover intention	
	Slope	*t*	Slope	*t*
1 (High age, strong independent)	−.26	−11.93***	−.37	−11.18***
2 (High age, weak independent)	−.12	−5.87***	−.23	−8.98***
3 (Low age, strong independent)	−.27	−16.77***	−.36	−17.38***
4 (Low age, weak independent)	−.29	−14.36***	−.35	−12.93***
Slope differences				
1 and 2		−4.91***		−2.98**
1 and 3		0.34		−0.06
1 and 4		0.96		−0.39
2 and 3		6.09***		4.03***
2 and 4		6.27***		3.21***
3 and 4		0.86		−0.45

Note: Slope numbers correspond to the numbers listed in Fig. 1. Simple slope tests were based on Sibley (2008) and slope difference tests were based on Dawson and Richter (2006).

** $p < .01$. *** $p < .001$.

Table 5. Descriptive statistics and Pearson correlations in Study 2.

Variables	*M*	*SD*	1	2	3
1. Job satisfaction	7.44	1.44			
2. Age	44.02	8.38	.14		
3. Independent CO	.18	.33	.14	−.18*	
4. Turnover	.27	–	−.11	−.28**	.24**

Note: $N = 149$. CO = career orientation. [a]0 = no turnover, 1 = turnover.

* $p < .05$; ** $p < .01$.

Table 6. Logistic regression analysis for predicting turnover in Study 2.

Predictor	Turnover[a]					
	Model 1		Model 2		Model 3	
	B (*SE*)	OR [95% CI for OR]	B (*SE*)	OR [95% CI for OR]	B (*SE*)	OR [95% CI for OR]
Intercept	−1.61 (0.24)***		−1.52 (0.26)***		−.90 (0.41)*	
Job satisfaction (JS)	−.35 (0.15)*	.71 (.52, .96)	−.52 (0.20)**	.59 (.40, .87)	−1.59 (0.61)**	.20 (.06, .67)
Age	−.06 (0.03)*	.95 (.90, 1.00)	−.06 (0.03)*	.94 (.89, 1.00)	.00 (0.04)	1.00 (.92, 1.09)
Independent CO	1.79 (0.61)**	5.99 (1.83, 19.62)	2.39 (0.81)**	10.88 (2.24, 52.84)	6.02 (2.05)**	412.82 (7.46, 22840.77)
JS x age			−.02 (0.02)	.98 (.94, 1.01)	−.14 (0.06)*	.87 (.77, .98)
JS x independent CO			−1.00 (0.80)	.37 (.89, 1.76)	−7.40 (3.41)*	.00 (.00, .52)
Age x independent CO			.06 (0.08)	1.06 (.90, 1.25)	.42 (0.20)*	1.52 (1.02, 2.27)
JS x age x independent CO					−.75 (0.35)*	.47 (.24, .94)
Model χ^2 (*df*)	20.62 (3)		23.70 (6)		32.95 (7)	
−2 log likelihood	129.06		125.98		116.72	
R^2 (Cox & Snell)	.13		.15		.20	
R^2 (Nagelkerke)	.20		.23		.31	

Note: $N = 149$. CO = career orientation. OR = odds ration. CI = confidence interval. [a]0 = no turnover, 1 = turnover

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 7. Test of simple slopes for three-way interactions in Study 2.

Pairs of comparison	Turnover	
	Slope	Z
1 (High age, strong independent)	−7.28	−2.31*
2 (High age, weak independent)	−.27	−0.89
3 (Low age, strong independent)	−.76	−1.63
4 (Low age, weak independent)	−.21	−1.10
	B (SE)	Wald
Slope differences		
1 and 2	−13.61 (6.27)	4.71*
1 and 3	−.39 (0.17)	4.97*
2 and 4	.00 (0.02)	0.03
3 and 4	−1.07 (0.95)	1.27

Note: Slope numbers correspond to the numbers listed in Fig. 5. Simple slope tests were based on Hayes (2013) and slope difference tests were based on Dawson (2014).

* $p < .05$.
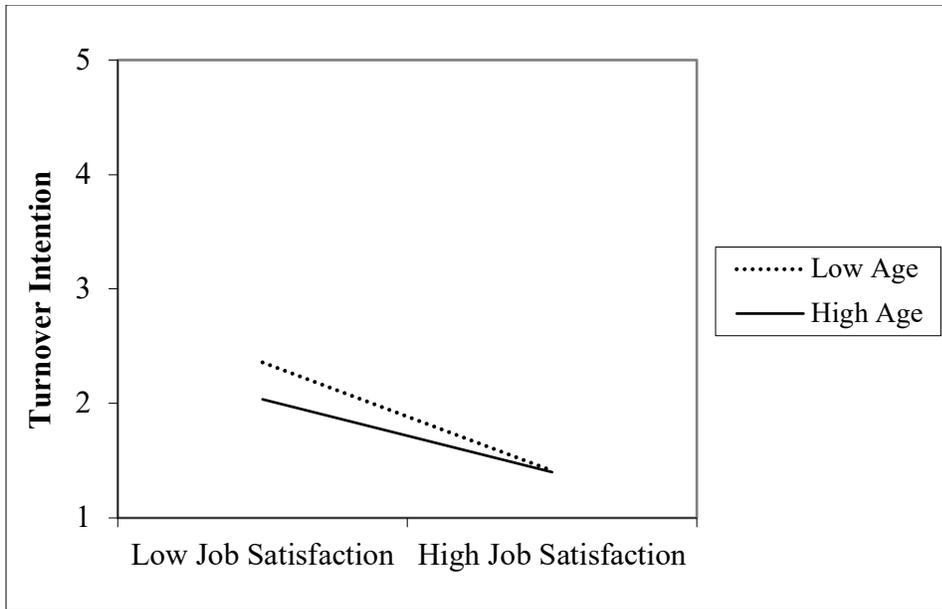
Figure 1. Plot of the interaction effect among job satisfaction and age on employees' turnover intention, Study 1 Sample 1.
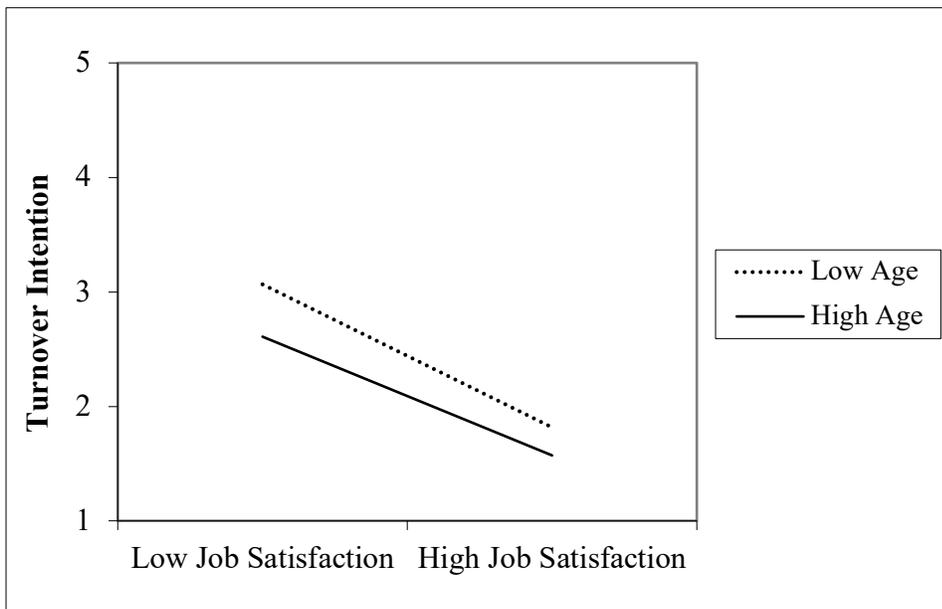

Figure 2. Plot of the interaction effect among job satisfaction and age on employees' turnover intention, Study 1 Sample 2.
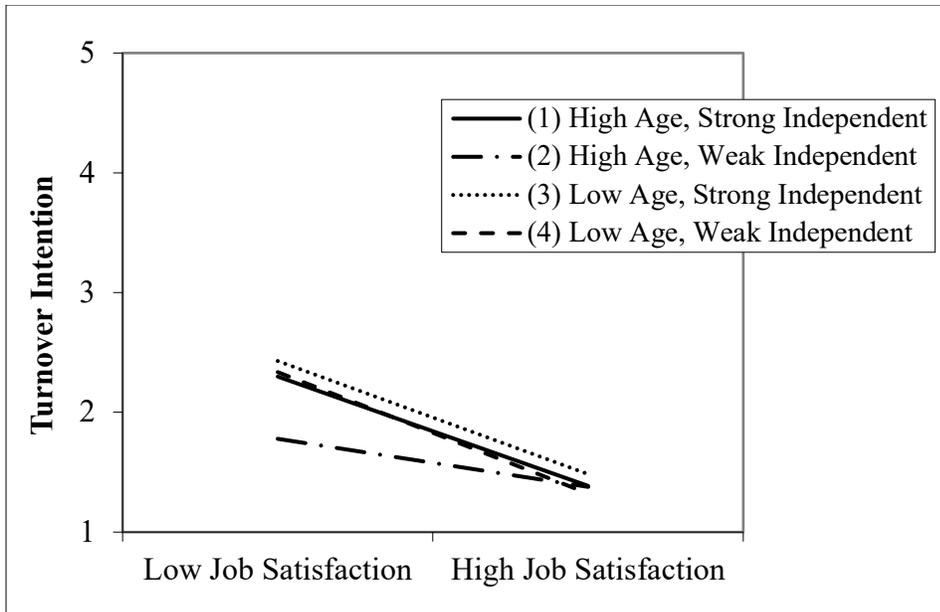
Figure 3. Plot of the 3-way interaction effect among job satisfaction, age, and independent career orientation on employees' turnover intention, Study 1 Sample 1.
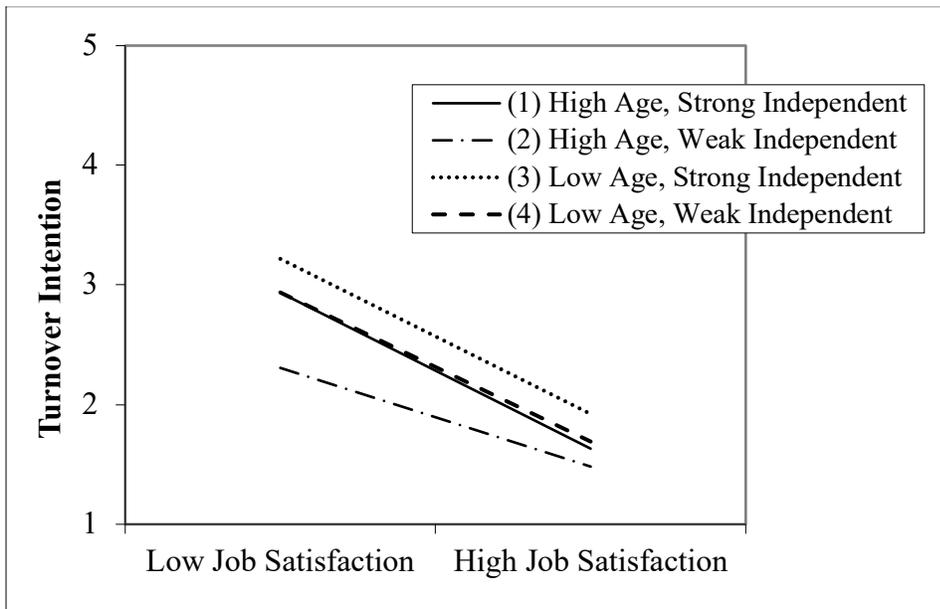

Figure 4. Plot of the 3-way interaction effect among job satisfaction, age, and independent career orientation on employees' turnover intention, Study 1 Sample 2.
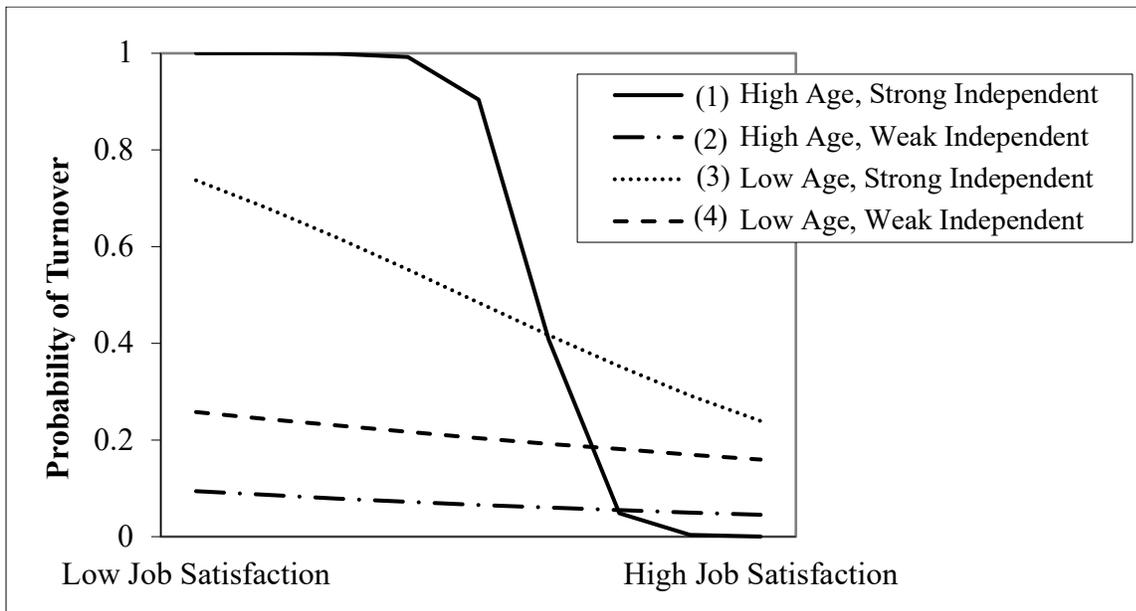
Figure 5. Plot of the 3-way interaction effect of job satisfaction, age, and independent career orientation on turnover in Study 2.

Note: The vertical axis represents the probability of turnover with 0 = "no probability of turnover" and 1 = "full probability of turnover." The plotted probabilities were estimated by means of the logistic regression model.