frontiers in Organizational Psychology

TYPE Original Research
PUBLISHED 04 August 2026
DOI 10.3389/forgp.2026.1800438

OPEN ACCESS

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RECEIVED 30 January 2026
REVISED 10 July 2026
ACCEPTED 10 July 2026
PUBLISHED 04 August 2026

CITATION
Schaltegger C, Rother T, Scheel TE and Zölch M (2026) Blended teams in a changing workplace: how permanent employees perceive collaboration with non-permanent workers.
Front. Organ. Psychol. 4:1800438.
doi: 10.3389/forgp.2026.1800438

Blended teams in a changing workplace: how permanent employees perceive collaboration with non-permanent workers

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Introduction: This study examines how permanent employees perceive collaboration with non-permanent workers in blended teams, drawing on Psychological Contract (PC) theory and signaling theory. In view of the challenges facing the world of work, the need for flexible work is evident. Organizations depend on non-permanent workers to lower financial risks, to achieve flexibility, and to access specific expertise. However, few studies have looked at permanent employees in blended teams and their collaboration with non-permanent workers.

Methods: We explored this issue in a mixed-methods study across six Swiss organizations. Study 1 surveyed 878 permanent employees to examine associations between the perceived proportion of non-permanent workers in the team and organizational trust, job insecurity, and team commitment, and to test perceived organizational support (POS) as a moderator. Study 2 comprised qualitative interviews with 22 survey participants to explore how permanent employees interpret collaboration with non-permanent workers in their everyday work experiences.

Results: Study 1 showed that the perceived proportion of non-permanent workers in the team was not significantly related to permanent employees' organizational trust, job insecurity, or team commitment in our cross-sectional analyses. However, POS moderated the relationship with organizational trust. Study 2 identified seven key themes and 15 sub-themes characterizing how permanent employees interpret collaboration with non-permanent workers.

Discussion: Collaboration with non-permanent workers is perceived as ambivalent rather than uniformly positive or negative; for example, it may be perceived as reducing workload as well as creating additional workload. However, organizational and managerial conditions seem to shape these perceptions. By integrating PC theory with signaling theory, we provide a more detailed explanation under which conditions collaboration is perceived as a signal of support or replaceability, and how this shapes permanent employees' employment relationship.

KEYWORDS
blended teams, collaboration, flexible work, non-permanent workers, non-traditional employment relationships, permanent employees

1 Introduction

Blended teams, where permanent employees and non-permanent workers collaborate, are common, and an increasing number of permanent employees are performing tasks alongside non-permanent workers, under different contractual arrangements (Cropanzano et al., 2023; Eldor and Cappelli, 2021). Maximizing the benefits of blended teams requires insights into not only how such arrangements relate to non-permanent workers but also how they relate to permanent employees' attitudes (Banerjee et al., 2012; Kraimer et al., 2005). One reason for hiring non-permanent workers is to reduce the workload of permanent employees, thereby being associated with more favorable attitudes among permanent employees (Bajorek and Guest, 2019). However, in general organizations often rely on non-permanent workers for cost reduction, achieving flexibility in the face of uncertainty, or managing knowledge and flow of information more effectively (Barley and Kunda, 2004; Cropanzano et al., 2023). This practice is primarily motivated by organizational benefits (Bal and Izak, 2021) and can therefore be identified as a rather control-focused human resource (HR) practice (Nishii et al., 2008). Previous studies suggest that collaboration with non-permanent workers is often viewed less favorably by permanent employees (Liu et al., 2025). Since 2020, more heterogeneous and blended team structures have become increasingly visible, alongside developments such as gig work (Cropanzano et al., 2023; Huang et al., 2025) or sourcing skilled non-permanent workers (Sulbout et al., 2022). Yet relying on non-permanent workers may convey information about organizational intentions in terms of priorities and stability for permanent employees. Therefore, it is important to examine whether and how perceived blended team composition continues to relate to permanent employees' attitudes. More recent studies have focused primarily on behavioral and organizational outcomes, such as turnover (Bonet et al., 2024), quality of permanent jobs (Pollio et al., 2025) and organizational performance (Eldor and Cappelli, 2021), whereas little is known about the nature of collaboration and relationships in blended teams (Cropanzano et al., 2023) and how permanent employees interpret such day-to-day collaboration. Therefore, throughout this study, we focus explicitly on the perspective of permanent employees and aim to investigate how the perceived proportion of non-permanent workers within a team relates to the attitudes of permanent employees and how collaboration with non-permanent workers is interpreted from the perspective of permanent employees. Previous research suggests that it is the proportion of non-permanent workers, rather than their mere presence, that is important (King et al., 2017). Building on this idea, we focus on the perceived proportion of non-permanent workers in the team, because a higher perceived proportion may make blended team composition more salient in permanent employees' everyday work environment.

In this study, our understanding of the term *non-permanent worker* is informed by the definition of Cropanzano et al. (2023), who distinguish non-permanent work arrangements from other forms of workplace flexibility, such as telecommuting, remote work, or flexible working-time arrangements. We further draw on the categorization system developed by Cappelli and Keller (2013), and classify non-permanent workers as workers on limited or 0-h contracts (Connelly and Gallagher, 2004), temporary agency workers, and contractors or freelancers. Although temporary and contingent employment has declined slightly since its peak during COVID-19, organizations in the European Union and in Switzerland continue to rely on non-permanent workers (Bundesamt für Statistik [BFS], 2026; Eurostat, 2024). As a result, blended teams are now a common organizational form. This distinction may be important because recent research on work flexibilization conceptualizes flexibility often in terms of employees' latitude regarding when and where they work, including flexible working hours and working from home (Poethke et al., 2019; Rudolph and Zacher, 2026). Although such forms of flexibility are part of the broader transformation of work, they refer to flexibility in work location and working time and are therefore not the focus of this study.

Study 1 takes a quantitative approach to investigating how the perceived proportion of non-permanent workers in a team relates to attitudes among permanent employees, specifically organizational trust, job insecurity, and team commitment. Additionally, the study explores whether POS moderates these relationships. The theoretical foundation for this analysis is provided by Psychological Contract (PC) and signaling theory. Study 2 adopts a qualitative approach using semi-structured interviews with permanent employees from the same survey sample. We aimed to gain a more nuanced understanding of how permanent employees perceive collaboration with non-permanent workers.

We contribute to the literature in three ways. First, we extend research on flexible work by examining the perspective of permanent employees in contemporary organizations and long-standing reliance on non-permanent workers. This provides a complementary perspective to the existing literature, which has mainly focused on non-permanent workers themselves. Our study is, to our knowledge, the first to link collaboration with non-permanent workers to affective team commitment and perceived organizational support (POS). Second, we deepen the understanding of collaboration in blended teams by explicitly focusing on the experiences and perceptions of permanent employees. Third, in addition to a quantitative study, we employ a qualitative research design in a field that has been primarily studied quantitatively.

2 Theoretical background

We aim to examine the relationship between the perceived proportion of non-permanent workers in the team and organizational trust, job insecurity, and team commitment of permanent employees and whether POS moderates the relationships. We look at the relationship through the lens of PC theory (Rousseau, 1989), which draws on principles of Social Exchange Theory (Blau, 1964). In this context, POS indicates a supportive social exchange relationship between employees and the organization (Eisenberger et al., 1986). The PC is a well-established construct for operationalizing social exchange (Coyle-Shapiro and Conway, 2005) and is commonly used to conceptualize the employment relationship (Conway and Pekcan,

2019). It is defined as "a cognitive schema, or system of beliefs, representing an individual's perceptions of his or her own and another's obligations, defined as the duties or responsibilities one feels bound to perform" (Rousseau et al., 2018). As such, it encompasses the perceived mutual obligations between employees and their employer that shape the nature of the employment relationship (Robinson and Rousseau, 1994). These obligations can emerge from both internal and external sources (Rousseau et al., 2018). Arguably, the most critical construct in PC theory is PC breach (Conway and Briner, 2002). Meta-analyses have demonstrated that PC breach significantly impacts key organizational outcomes (Zhao et al., 2007). Breach refers to a cognitive state in which employees perceive that the organization has failed to fulfill one or more obligations in proportion to their contributions (Morrison and Robinson, 1997). Management and HR practices—including the use of non-permanent workers—may shape the PC (Rousseau, 1995; Schreuder et al., 2017) and provide employees with insights into the terms of their PC and the potential risk of breach (Shore and Tetrick, 1994).

The link between PC and HR practices can be explained through signaling theory (Suazo et al., 2009; Woodrow et al., 2024), as permanent employees, acting as receivers, rely on organizational signals to interpret different aspects of the employment relationship. More specifically, signaling theory describes how observable and credible signals convey information about unobservable organizational qualities in situations characterized by information asymmetry between sender and receiver (Connelly et al., 2025). HR and organizational practices can be understood as such observable signals, conveying information about underlying organizational priorities and intentions such as appreciation or stability (Guest et al., 2021). Employees interpret these signals and, in turn, use them to form beliefs about mutual obligations. Therefore, blended team composition and related practices become meaningful for permanent employees as they may signal underlying organizational priorities and intentions, thereby informing their interpretation of the employment relationship. Based on these considerations, we specify these relationships for organizational trust, job insecurity, and affective team commitment. Organizational trust can be understood as an indicator of the state of the PC (Coyle-Shapiro and Conway, 2004; Guest, 2004), job security as a core element of the nature of the PC (Kraimer et al., 2005; Rousseau, 1995), and affective commitment as a well-researched outcome of PC breach (Zhao et al., 2007).

2.1 Blended teams and organizational trust among permanent employees

In this study, we conceptualize organizational trust as permanent employees' trust in organizational representatives and the organization. Trust is defined as a psychological state that arises from the willingness to make oneself vulnerable based on positive expectations (Rousseau et al., 1998). From a PC perspective, trust reflects employees' beliefs about the organization's delivery on the deal (Guest, 2004) and willingness to fulfill its exchange obligations (Wayne et al., 1997). Because such obligations are not directly observable, employees rely on signals from organizations which indicate unobservable qualities (Connelly et al., 2025; Suazo et al., 2009). The perceived proportion of non-permanent workers in the team may be associated with how they interpret the organization's willingness to invest in stable, long-term employment relationships. Because trust reflects positive expectations about favorable actions (Robinson, 1996) and is particularly sensitive to practices that signal that relational obligations may not be upheld (Griep, 2025), such signals should be particularly relevant for organizational trust.

In addition, with regard to organizational justice, trust is strongly linked to perceptions of fairness in procedures, distribution, and interpersonal treatment (Colquitt, 2001). Social comparisons play a key role in shaping these fairness perceptions (Ambrose and Kulik, 1989). In blended teams, permanent employees may feel disadvantaged compared to non-permanent workers in terms of task allocation, responsibilities (Geary, 1992; Pearce, 1993), or reward structures (Hoque and Kirkpatrick, 2008). However, it is important for permanent employees to be in a favored role with regard to HR practices (Scheel et al., 2013). Fair treatment constitutes an organizational obligation (Griep, 2025). Accordingly, a blended team practice may signal to permanent employees that the organization is not fully meeting this obligation. Taken together, these dynamics may signal to permanent employees that the organization does not equally value their contributions, and they are therefore likely to report lower levels of organizational trust. Therefore, we hypothesize the following:

H1: The perceived proportion of non-permanent workers in a team is negatively related to permanent employees' organizational trust.

2.2 Blended teams and job insecurity among permanent employees

Job insecurity is described as the subjective experience of anticipating a fundamental and involuntary event or change concerning one's present job in the future and the worries related to that (Greenhalgh and Rosenblatt, 1984; Sverke et al., 2002). However, organizational factors (Keim et al., 2014) such as perceived lack of control and uncertain employment conditions (Ashford et al., 1989) are predictors of job insecurity. Based on signaling considerations, to the extent that permanent employees interpret a high proportion of non-permanent workers in the team as indicating lower organizational emphasis on employment stability, they may question the security and future relevance of their role. Organizations may thus signal to permanent employees that their roles are potentially replaceable (Banerjee et al., 2012; Geary, 1992). Recent review evidence similarly suggests that blended teams may be associated with concerns about replaceability among permanent employees (Liu et al., 2025). From a PC perspective, job security constitutes a key element of the relational PC, which is built on mutual trust (Kraimer et al., 2005). Consequently, permanent employees in blended teams may raise questions about the organization's commitment to employment stability. As a result, they are likely to respond with job insecurity. Thus, we hypothesize:

H2: The perceived proportion of non-permanent workers in a team is positively related to permanent employees' job insecurity.

2.3 Blended teams and team commitment among permanent employees

Team commitment is the relative strength of an individual's identification with, and involvement in, a particular team and is characterized by a strong belief in, and acceptance of the team's goals and values, the willingness to exert effort on behalf of the team, and the desire to stay in the team (Bishop and Scott, 2000).

Although PC theory was originally developed to describe the relationship between employees and organizations, it can also be applied to team exchanges (Alcover et al., 2017; Ho and Levesque, 2005; Schreuder et al., 2017). In blended teams, permanent employees and non-permanent workers often operate under different types of PCs. Relational PC content (i.e., long-term focus such as loyalty) is more common among permanent staff, whereas non-permanent work arrangements are typically associated with more transactional terms (Cropanzano et al., 2023). As the perceived proportion of non-permanent workers increases and such differences become more salient, these differences may be associated with weaker shared perceptions of mutual obligations within the team. This, in turn, may hinder the formation of normative contracts, where team members share common beliefs about expected contributions and obligations (Rousseau, 1995). The absence of such shared understandings may be associated with lower group cohesiveness, which is an important antecedent of affective team commitment (Vandenberghe et al., 2004). As a consequence, identification with the team may be impaired (Alcover et al., 2017). Consistent with this reasoning, prior research suggests that blended team composition may be associated with lower quality of team relationships (King et al., 2017), heightened conflict potential (Cropanzano et al., 2023), and altered team dynamics (Bajorek and Guest, 2019; Wilkin et al., 2018). Together, these processes may correspond to lower permanent employees' affective commitment to the team by reducing identification with and involvement in the team as a whole. We therefore hypothesize:

H3: The perceived proportion of non-permanent workers in a team is negatively related to permanent employees' affective commitment to their team.

2.4 POS as moderator of the relationship between blended teams and organizational trust, job insecurity, and team commitment

POS reflects the extent to which employees believe that their organization values their contributions and cares about their wellbeing (Eisenberger et al., 1997). As such, POS is considered an indicator of the quality of the social exchange relationship (Dulac et al., 2008). In the present context, we argue that POS shapes how permanent employees interpret blended team composition.

Our arguments regarding organizational trust, job insecurity, and team commitment were based on prior research (Liu et al., 2025) suggesting that permanent employees often interpret blended team composition as indicating a more control-focused than commitment-oriented organizational approach (Nishii et al., 2008). Such interpretations may imply lower stability or greater replaceability. This may threaten the perceived position or value of permanent employees within the organization (Kraimer et al., 2005). However, signaling theory also implies that the same practice can carry different meanings depending on contextual cues. We therefore conceptualize POS as an interpretive context that may shape whether a higher perceived proportion of non-permanent workers in the team is interpreted in negative terms or as a form of support. Consistent with prior research, POS strengthens workplace relationships by fostering a sense of fairness (Wayne et al., 2002) and employees who perceive strong organizational support are more inclined to view breach as temporary lapses that the organization will eventually rectify (Dulac et al., 2008). More broadly, supportive aspects of the employee–organization relationship may help to reduce the negative associations between the perceived proportion of non-permanent workers and attitudes of permanent employees (George, 2003). Accordingly, higher POS should weaken the hypothesized negative associations of perceived proportion of non-permanent workers and organizational trust and team commitment, as well as the hypothesized positive associations for job insecurity.

We therefore hypothesize:

H4a–c: POS moderates the hypothesized relationships between the perceived proportion of non-permanent workers in the team and (a) organizational trust, (b) job insecurity, and (c) affective team commitment, such that these relationships are expected to be weaker when POS is higher and stronger when POS is lower.

3 Study 1

3.1 Materials and methods

3.1.1 Data collection and participants

Data were collected in six organizations in the healthcare, mobility, and financial services sectors in Switzerland between November 2021 and May 2022. This study was part of a larger research project on flexible work and blended workforce practices. We focused on professionals and specialists in nursing, IT, and management roles. A total of 4,136 non-permanent and permanent employees were contacted; 27% (1,127) completed the survey. The response rate per organization ranged from 16% to 52%. Of the 1,127 respondents who completed the survey, we first excluded cases based on initial data quality criteria. Specifically, we excluded participants who completed the survey in less than 290 s and/or did not answer a substantial proportion of the survey items, defined as more than 40% missing item responses ($n = 14$). We further excluded participants who could not be clearly classified as either permanent employees or non-permanent workers based on their self-reported employment status ($n = 16$).

We tested our hypotheses with permanent employees cross-sectionally through a self-reported online survey using Tivian. The questionnaire was pilot tested before data collection. The

survey was conducted anonymously. Participation was voluntary, and participants could withdraw at any time without any negative consequences. The study was preregistered during ongoing data collection on April 25, 2022 [https://osf.io/m8j2r/?view_only=afeb3023579f48dfbe26bdf2a444ec5c]. At the time of preregistration, data from 726 permanent employees had already been submitted. No analyses of the focal hypotheses had been conducted at that time. However, we cannot reconstruct with certainty whether the raw data had already been viewed before preregistration. As the study was part of a larger research project it covered a broader set of outcomes, moderators, and hypotheses than those reported in the present article. The present manuscript reports a theory-guided subset of a broader preregistered research plan and data collection.

In total, 912 permanent employees completed the survey. Data cleaning involved excluding extreme outliers in the two variables used to calculate the predictor variable, namely the reported number of permanent employees in the direct team (=3,500; $n = 1$) and the reported number of non-permanent workers in the direct team (>100; $n = 4$). We further excluded cases with zero values for both team-size variables ($n = 4$), because these responses did not allow calculation of the team-composition variable. Finally, we excluded cases with missing or "other" responses for occupational group because occupational group was included as a control variable and the "other" category was small and heterogeneous ($n = 25$). Scale scores were computed only when all items of the respective scales were available. For the regression analyses, cases with missing values on any variable included in the respective model were excluded listwise. The final sample size was $N = 878$ participants. Of these, 52.9% were men, 45.1% were women, and 2% either identified as non-binary or did not report their gender. The largest age group was 25–39 years, representing 38.5% of the sample, and nearly half of the respondents (47.8%) held a university degree. Participants had an average organizational tenure of 113.35 months ($SD = 122.48$). Regarding job roles, 47.9% worked in IT, 32.7% in management, 19.4% in nursing.

The preregistration included a power analysis for the planned regression analyses. This analysis was conducted in G*Power (Faul et al., 2009) for a fixed-model multiple regression with two tested predictors and eight total predictors. For this calculation, we specified a medium effect size ($f^2 = 0.15$) in line with conventional effect size assumptions based on Cohen (1988). The preregistered setup indicated a projected sample size of approximately $N = 107$. To provide context for expected effect sizes in this research area, we refer to a study by George (2003), who reported small to moderate negative relationships between blended teams and internal workers' attitudes. To evaluate statistical power for the hypothesized interaction effects in the final analytical models, we additionally conducted a sensitivity analysis for the interaction term. With the available sample sizes across outcomes ($N = 783$–788), seven predictors in the full model, $\alpha = 0.05$, and power = 0.80, the analyses indicated that the study was powered to detect small incremental interaction effects of approximately $f^2 = 0.01$. Thus, very small interaction effects may have remained undetected.

3.1.2 Measures

The questionnaires were administered in English and/or German, depending on the organization. Published translations by the cited authors of the scales were used. Unless otherwise indicated, a Likert scale was used, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). At the beginning of the questionnaire, we provided the following definition: "When we use the term flexible worker in the questionnaire, we mean temporary employees who are directly employed by the organization or employees who work for the organization via agency or as freelancers. In the IT sector, this also includes employees who work for the organization via an external company." Because the original questionnaire used the term *flexible worker*, we provide the survey wording. This wording referred to flexibility in employment arrangements and not to flexibility in work location or working time.

Our independent variable was the *perceived proportion of non-permanent workers* in a team. We followed the approach suggested by George et al. (2016) and George et al. (2012) and assessed this variable based on permanent employees' reports of their team composition, as our arguments rest on the assumption that individuals act on how they perceive their environment. Accordingly, the variable is conceptualized as an individual-level, perception-based construct. First, we asked the participants about the total number of permanent employees in the team reporting to the same team leader ("What is the current number of permanent employees in your direct team?"; note: Number of permanent employees reporting to the same team leader). The second item asked for the number of non-permanent workers in the team ["What is the current number of flexible workers in your direct team?"; note: Number of flexible workers reporting to the same team leader (e.g., 5)]. Both items were combined to calculate team size and subsequently the perceived proportion of non-permanent workers in the team (i.e., from 0% to 100%). Appendix A provides an overview of the operationalization and conceptualization of the predictor *perceived proportion of non-permanent workers*.

The moderator variable, *perceived organizational support,* was assessed using the eight-item scale developed by Eisenberger et al. (1986). An example item is "Help is available from the organization when I have a problem." The reliability of the scale is Cronbach's $\alpha = 0.87$.

We assessed *organizational trust* using the 3-item PSYCONES measure (Guest et al., 2010). The scale was rated on a Likert-type response format ranging from 1 (*not at all*) to 5 (*totally*). A sample item for organizational trust is "To what extent do you trust senior management to look after your best interests?" The reliability of the scale is Cronbach's $\alpha = 0.74$.

Job insecurity was assessed with the 4-item Job Insecurity Scale (JIS) developed by De Witte (2000), based on the translation made available by the PSYCONES project (Guest et al., 2010). An example item is "I feel insecure about the future of my job." The reliability of the scale is Cronbach's $\alpha = 0.81$.

Affective team commitment was measured using the 5-item scale from Felfe and Franke (2012). An example item is "I feel a strong sense of belonging to this team." The reliability of the scale is Cronbach's $\alpha = 0.90$.

TABLE 1 Study 1. Results from the confirmatory factor analyses.

Model	x^2/df	RMSEA	CFI	TLI	SRMR
One-factor model	3,615.01***/170	0.16	0.55	0.49	0.16
Four-factor model	512.32***/164	0.05	0.96	0.95	0.05

The CFA was based on complete cases only ($N = 832$). Four-factor model: Job insecurity, affective team commitment, organizational trust, and perceived organizational support each load onto a separate latent factor; one-factor model: all variables load onto one latent factor. RMSEA, Root Mean Square Error of Approximation; CFI, Comparative Fit Index; TLI, Tucker-Lewis Index; SRMR, Standardized Root Mean Square.
***$p < 0.001$.

Control variables: we tested several potential control variables based on theoretical considerations and prior research. Age, tenure and gender were included because these demographic characteristics and employment-related variables may be associated with work-related attitudes such as trust, job insecurity and commitment (Chang et al., 2016; Keim et al., 2014; Ng and Feldman, 2010). These variables are also commonly included as control variables in related research on blended workforces (Banerjee et al., 2012; Broschak and Davis-Blake, 2006; George, 2003). In addition, given the heterogeneity of our sample across six organizations and three occupational groups, we controlled for occupational group because occupational contexts may differ in the prevalence and use of blended teams. Prior research suggests that the implications of blended team arrangements depend on how widespread such arrangements are in a given work context (George, 2003), and studies from IT and healthcare settings further illustrate that non-permanent workers are used differently across occupational contexts (Ang and Slaughter, 2001; Bajorek and Guest, 2019). We assessed *age* categorically (1 = 15–24 years, 2 = 25–39 years, 3 = 40–54 years, 4 = 55–65 years, and 5 = >65 years). *Tenure* was measured continuously; respondents were asked for the exact date they started working in their organization. Due to a high correlation between age and tenure ($r = 0.49$, $p < 0.001$), we decided to exclude tenure from the final analyses. *Gender* was dummy coded with 1 = *women* and 0 = *men and non-binary*. *Occupational group* was included as a set of dummy variables: IT (1 = *IT*, 0 = *not IT*) and Management (1 = *Management*, 0 = *not Management*), with *Nursing* serving as the reference category. Contrary to our preregistration, we did not control for *organization*. Cross-tabulations showed that organization and occupational group were strongly confounded: five of the six organizations contributed participants from only one occupational group. Therefore, and to avoid multicollinearity, we did not include organization as an additional control variable. To examine the robustness of the control variable specification, we estimated all hypothesized models without control variables. The results are reported in the Supplementary material (Appendix B).

3.1.3 Statistical analyses

We conducted a confirmatory factor analysis (CFA) to assess the factorial structure and discriminant validity of the self-report measures using the Lavaan package in R (Rosseel, 2012). The results showed that a four-factor model ($\chi^2_{(164)} = 512.32$, $p < 0.001$) in which organizational trust, job insecurity, affective team commitment, and POS were distinct yet correlated, fits the data (see Table 1). This model was superior to a one-factor model ($\chi^2_{(170)} = 3{,}615.01$, $p < 0.001$).

The predictor (perceived proportion of non-permanent workers in the team) ranged from 0 to 1 ($M = 0.15$, $SD = 0.20$, median = 0.07) and showed a positively skewed distribution, reflecting that many teams had low or zero proportions of non-permanent workers. To examine its functional form, we compared linear models with models including a quadratic term across the focal outcomes. The quadratic term was not statistically significant in any of these analyses and did not meaningfully improve model fit, suggesting no substantial deviation from linearity.

Analysis for the moderated multiple regression was performed using PROCESS Model 1 in R developed by Hayes (2022). Independent and moderator variables were mean-centered, except dummy-coded variables. We estimated 95% confidence intervals through bootstrap analysis performed with 5,000 resamples.

3.2 Results

Descriptive statistics and Spearman rank-order correlations are presented in Table 2.

Due to listwise exclusion of missing values, the analytic sample sizes differed slightly across regression models: $N = 784$ for organizational trust, $N = 783$ for job insecurity, and $N = 788$ for affective team commitment. The main effects of the *perceived proportion of non-permanent workers* on the dependent variables were not significant [*organizational trust* (H1): $B = -0.16$ ($SE = 0.12$), $p = 0.18$; *job insecurity* (H2): $B = -0.02$ ($SE = 0.12$), $p = 0.85$; *affective team commitment* (H3): $B = -0.29$ ($SE = 0.15$), $p = 0.07$; Table 3]. Thus, hypotheses H1, H2, and H3 were not confirmed. Providing partial support for H4a, the results—though modest—indicate that the interaction term was significant for organizational trust [H4a, $B = 0.36$ ($SE = 0.16$), 95% CI [0.05, 0.67], $p = 0.02$], suggesting that the relationship between the perceived proportion of non-permanent workers and organizational trust differed by the level of POS. The simple slopes analysis (see Figure 1) showed the perceived proportion of non-permanent workers was negatively related to organizational trust at low levels of POS, whereas this relationship was not statistically significant at high levels of POS.

In contrast, the interaction term was not significant for job insecurity [H4b, $B = -0.21$ ($SE = 0.16$), 95% CI [−0.52, 0.11], and $p = 0.20$], and affective team commitment [H4c, $B = 0.07$ ($SE = 0.20$), 95% CI [−0.33, 0.47], and $p = 0.72$]. Thus, hypotheses H4b and H4c were not confirmed. Additionally, the moderator POS was directly related to all

TABLE 2 Study 1. Means, standard deviations, and Spearman rank-order correlations for all study variables.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	
1. Age	2.67	0.85											
2. Gender	0.45	0.50	−0.20***										
3. Tenure	113.35	122.48	0.49***	−0.09*									
4. Nursing (19.4%)	0.19	0.40	−0.03	0.34***	−0.06								
5. IT (47.9%)	0.48	0.50	0.27***	−0.35***	0.11**	−0.47***							
6. Management (32.7%)	0.33	0.47	−0.26***	0.09**	−0.07*	−0.34***	−0.67***						
7. Perceived proportion of non-permanent workers	0.15	0.20	0.02	−0.14***	−0.09*	−0.13***	0.33***	−0.24***					
8. POS	3.62	0.74	0.10**	−0.19***	0.01	−0.35***	0.23***	0.05	0.07	(0.87)			
9. Organizational trust	3.64	0.86	0.02	−0.16***	−0.10**	−0.30***	0.09*	0.16***	0.01	0.68***	(0.74)		
10. Job insecurity	1.72	0.66	0.09**	−0.01	0.10**	−0.10**	0.02	0.06	0.00	−0.18***	−0.15***	(0.81)	
11. Team commitment	3.78	0.87	0.10**	−0.07*	0.13***	0.01	−0.10**	0.09**	−0.10**	0.31***	0.34***	−0.12***	(0.90)

$N = 780–878$. Gender: 1 = women, 0 = men and non-binary. Occupational groups are coded as dummies, each subgroup against all others: Nursing (1 = Nursing, 0 = not Nursing), IT (1 = IT, 0 = not IT), and Management (1 = Management, 0 = not Management). POS = Perceived Organizational Support. Percentages in brackets next to the variable show the proportion of participants per occupational group. The Other category ($n = 25$) is not displayed separately due to small subgroup size. Cronbach's αs reliabilities are shown in parentheses in the diagonal. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

TABLE 3 Study 1. Summary of regression analyses for perceived proportion of non-permanent workers in the team and organizational trust, job insecurity, and affective team commitment moderated by perceived organizational support (POS).

Variable	Organizational trust[a]		Job insecurity[b]		Affective team commitment[c]	
	B (SE)	95% CI	*B* (SE)	95% CI	*B* (SE)	95% CI
Constant	3.65*** (0.10)	[3.44, 3.85]	1.21*** (0.11)	[1.01, 1.42]	4.01*** (0.14)	[3.75, 4.27]
Covariates						
Gender	−0.06 (0.05)	[−0.16, 0.04]	0.03 (0.05)	[−0.07, 0.12]	−0.19** (0.06)	[−0.31, −0.06]
Age	−0.02 (0.03)	[−0.08, 0.04]	0.07** (0.03)	[0.02, 0.13]	0.10** (0.04)	[0.03, 0.17]
IT	0.04 (0.07)	[−0.10, 0.18]	0.32*** (0.07)	[0.18, 0.47]	−0.61*** (0.09)	[−0.79, −0.42]
Management	0.20** (0.07)	[0.06, 0.34]	0.38*** (0.07)	[0.24, 0.52]	−0.30*** (0.09)	[−0.48, −0.12]
Independent variables						
Perceived proportion of non-permanent workers	−0.16 (0.12)	[−0.40, 0.07]	−0.02 (0.12)	[−0.26, 0.22]	−0.29 (0.15)	[−0.59, 0.02]
POS	0.78*** (0.03)	[0.72, 0.84]	−0.22*** (0.03)	[−0.28, −0.16]	0.45*** (0.04)	[0.37, 0.54]
Moderation						
POS* Perceived proportion of non-permanent workers	0.36* (0.16)	[0.05, 0.67]	−0.21 (0.16)	[−0.52, 0.11]	0.07 (0.20)	[−0.33, 0.47]
R^2	0.48***		0.08***		0.17***	
ΔR^2 increase due to interaction	0.004*		0.00		0.00	

$N = 783–788$. Gender: 1 = women, 0 = men and non-binary. Occupational group was dummy-coded with Nursing as the reference category. The table displays effects for IT (1 = IT, 0 = not IT) and Management (1 = Management, 0 = not Management). POS, Perceived Organizational Support. [a]$N = 784$, $F_{(7,776)} = 103.17^{***}$, [b]$N = 783$, $F_{(7,775)} = 9.16^{***}$, [c]$N = 788$, $F_{(7,780)} = 22.87^{***}$. $^{*}p < 0.05$, $^{**}p < 0.01$, and $^{***}p < 0.001$.

dependent variables [organizational trust: $B = 0.78$ ($SE = 0.03$); job insecurity: $B = -0.22$ ($SE = 0.03$); affective team commitment: $B = 0.45$ ($SE = 0.04$), all $p < 0.001$]. As a robustness check, we re-estimated all hypothesized models without control variables. These analyses are reported in Appendix B. The results indicate that some findings were sensitive to the control-variable specification. Specifically, the interaction effect between the perceived proportion of non-permanent workers and POS was no longer statistically significant for organizational trust without controls, whereas the interaction effect for job insecurity and the main effect of the perceived proportion of non-permanent workers on affective team commitment became statistically significant when controls were omitted. Thus, the robustness analyses suggest that the statistical significance of

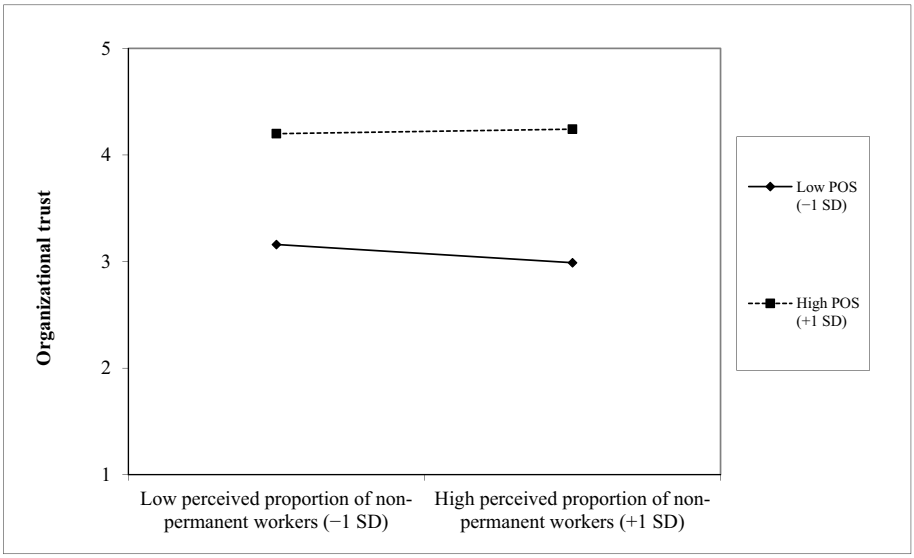

FIGURE 1
Moderating effect of perceived organizational support (POS) on the relationship between the perceived proportion of non-permanent workers and organizational trust. POS, perceived organizational support. For plotting the interaction, low and high POS values represent one standard deviation below and above the sample mean, respectively. Likewise, the low and high values on the *x*-axis represent one standard deviation below and above the sample mean of the perceived proportion of non-permanent workers. Both variables were mean-centered. Source: Created by the authors.

some effects varied depending on whether control variables were included.

3.3 Discussion

The goal of Study 1 was to explore the relationship between the perceived proportion of non-permanent workers in the team and permanent employees' attitudes and whether these relationships are moderated by POS. None of the main-effect hypotheses were supported. The moderation hypothesis for organizational trust received support: POS moderated the relationship between the perceived proportion of non-permanent workers and organizational trust. Specifically, the perceived proportion of non-permanent workers was negatively related to organizational trust at low levels of POS, whereas this relationship was not statistically significant at high levels of POS. However, the effect was minimal. This moderation effect should therefore be interpreted cautiously, as it was the only supported interaction among the broader set of preregistered moderation tests. Moreover, the robustness analyses without control variables indicate that some effects were sensitive to the control-variable specification. One possible interpretation of the non-significant main effects relates to the dynamic nature of the PC. Recent work emphasizes that perceived obligations evolve over time through ongoing interactions and experiences (Bankins et al., 2020; Rousseau et al., 2018). As Rousseau et al. (2018) propose, employees differ in the extent to which they perceive a discrepancy between perceived obligations and inducements. Minor discrepancies tend to passively change the PC but have limited consequences for PC evaluation, whereas substantial discrepancies are more likely to result in disruptions and affective reactions (Rousseau et al., 2018). In blended teams, the collaboration with non-permanent workers may therefore, in some contexts, be understood as a passive adjustment in PC-relevant interpretations.

This may also be related to broader transformations in the world of work (Bankins et al., 2020). While earlier research often reported negative consequences of non-permanent work (Liu et al., 2025), much of the work predates major structural changes in how work is organized. Since 2020, workforce structures may have become increasingly heterogeneous, driven by the rise of gig work (Cropanzano et al., 2023), digital transformations in how work is organized (Ballas et al., 2024), and more fluid organizational boundaries (Cross et al., 2024). In such a context, blended team composition may have become a more common feature of everyday work and may therefore be less likely, for some employees, to be interpreted as exceptional or threatening. This may be one plausible contextual condition under which uniformly negative associations are less likely to emerge.

4 Study 2

To complement the survey-based analysis of the perceived proportion of non-permanent workers, Study 2 examined how permanent employees described and interpreted concrete collaboration experiences with non-permanent workers in their everyday work. Specifically, Study 2 aimed to examine the quality of collaboration in blended teams more explicitly. This aligns with previous research urging a more detailed investigation of collaboration between non-permanent and permanent staff (Cropanzano et al., 2023; Kraimer et al., 2005).

In Study 1, we argued that the perceived proportion of non-permanent workers in the team may function as an organizational signal from which permanent employees infer

TABLE 4 Study 2. Themes and sub-themes identified in the qualitative interviews.

Theme	Sub-theme	Count codings [count interviews]
Workload	Workload reduction	28 [12]
	Additional workload	26 [13]
Competence	Skill-related competence	31 [18]
	Lack of skill-related competence	22 [11]
Responsibility	Additional responsibility	4 [4]
Socialization	Proactive socialization behavior	42 [19]
	Passive motivation	7 [7]
Interpersonal relationships	Co-worker support	5 [4]
	Ostracism	12 [8]
	Unrest and uncertainty	14 [10]
	Interpersonal conflicts	9 [6]
Working conditions	Conducive work practices	41 [20]
	Unfavorable organizational conditions	20 [11]
Communication and information	Clear communication	10 [7]
	Restricted access to systems and slow flow of information	18 [10]

underlying priorities and intentions. Depending on the context, this practice may be interpreted as signaling support, or as indicating cost reduction, instability and reduced investment in long-term employment relationships (Bal and Izak, 2021). Although our theoretical arguments in Study 1 primarily emphasized potentially negative implications, the quantitative findings underscore the need to better understand how collaboration with non-permanent workers is interpreted in everyday work and which aspects of collaboration shape these interpretations. Study 2, therefore, focused on the positive and negative meanings permanent employees attribute to collaboration in blended teams. We were guided by the following research question: *How do permanent employees perceive collaboration in blended teams*?

4.1 Materials and methods

4.1.1 Participants and procedure

Data were collected through semi-structured interviews with permanent employees in the same research project described in Study 1. The participants were recruited through the online survey described above. Upon completion of the questionnaire, participants were given the option of expressing their interest in participating in an in-depth interview. Thus, interview participation was voluntary and based on participants' self-selection into the qualitative follow-up study. It was emphasized to them that their employer would not be informed of their involvement. Ultimately, 22 permanent employees (see Appendix C for details) who worked with non-permanent workers in a team confirmed their interest in being interviewed. The sample comprised 14 men and 8 women. The age distribution was as follows: 8 participants were between 25 and 39 years old, 12 participants were between 40 and 54, and 2 participants were between 55 and 65. The distribution of interviewees across occupational group was as follows: 11 in IT, 5 in nursing, and 6 in management roles (financial advisory and HR). The semi-structured interviews were conducted online via MS Teams in July and August 2022. Survey data collection ended in May 2022. The interview guide was developed early in July 2022, after preliminary quantitative analyses had been conducted but before the final analyses and full interpretation of the results were completed. All three interviewers were research associates involved in the larger research project and were trained in using the interview guide. The interviews were conducted in German. All interviews were recorded with the interviewees' consent and subsequently transcribed verbatim using the software Sonix. The transcriptions were manually reviewed and corrected. At the beginning of each interview, we explained the interview process and informed participants that the study focused on research about flexible work. The questions were designed to explore the perceptions of permanent employees working in blended teams. The interview questions focused on (1) collaboration with non-permanent workers, (2) integration of non-permanent workers, and (3) challenge management in blended team settings. Appendix D includes the interview questions.

4.1.2 Analytical strategy

The complete transcripts were coded in MAXQDA over multiple coding cycles (Saldaña, 2021), and analyzed using qualitative content analysis (Kuckartz and Rädiker, 2023). We started with a concept-driven development of higher-order categories based on our theoretical framework, distinguishing positively and negatively interpreted aspects of collaboration. In a second cycle, we used a data-driven approach and developed sub-themes and themes from the data material. The category

system was tested on three interviews, discussed within the team, and further developed (Kuckartz and Rädiker, 2023; Saldaña, 2021). The interviews were distributed among two team members and coded based on the developed category system. These two coders were involved in the project and had also conducted part of the interviews. Coding proceeded in several iterative steps. In an initial phase, two coders independently coded the same interviews and compared their coding decisions. Discrepancies were discussed until agreement was reached. After further jointly discussed interviews, the first inductive sub-codes were integrated into the category system. The remaining interviews were then divided between the two coders and coded individually. In regular meetings, coding decisions, ambiguous passages, open questions, and potential refinements of the coding system were discussed within the team (Kuckartz and Rädiker, 2023). During the coding process, analytic memos were written to record relevant thoughts for the analysis as suggested by Saldaña (2021).

4.2 Results

For the analysis, we were interested in which aspects of collaboration with non-permanent workers were interpreted positively or negatively by permanent employees. The qualitative analyses revealed seven key themes and 15 sub-themes.

Table 4 summarizes the identified themes, their positive and negative manifestations, and their frequency of occurrence across the 22 interviews. In our analyses, we observed that most themes were not inherently positive or negative. We therefore analyzed themes thematically.

4.2.1 Workload

Workload emerged as a central theme, specifically whether working with non-permanent workers is perceived by permanent employees as an increased workload or a reduction in workload. The latter encompasses helping behaviors, which are team-oriented actions that can be performed with varying degrees of proactivity (Griffin et al., 2007).

> "*At the moment, I don't know how we would manage our day-to-day work without them (note: non-permanent workers).*" ID 22, nursing

Interviewees stated that non-permanent workers help reduce workload not only by providing direct support and assistance, but also by taking on tasks that permanent employees tend to avoid.

> "*It is clear that she/he will take on tasks that internal employees may not want to do, or that are time-consuming but not very exciting.*" ID 6, IT.

Concurrently, additional workload arising from collaboration with non-permanent workers was interpreted negatively, which is in line with Broetje et al. (2020), who identified work overload as a key job demand. Integrating non-permanent workers into essential processes often requires time from permanent employees, leading to overtime.

> "*We don't have (...) overlapping working hours. Instead, one shift ends at 10:00 p.m. and the next shift starts at 10:00 p.m. And if the person who starts at 10:00 p.m. is from Flex, they still need to be trained by the shift that is only supposed to last until 10:00 p.m. Then, overtime is expected from that shift—and it is done.*" ID 21, nursing.

A key aspect of this theme is the recurring need for onboarding. This is particularly challenging due to the frequent turnover of non-permanent workers, who usually remain in their positions for only a limited, predefined period. While participants described the additional workload as burdensome, they also acknowledged the relief provided by non-permanent workers. This duality points to a potential internal conflict among permanent employees: they may question whether the time and effort required for onboarding and supporting non-permanent workers is ultimately offset by the reduction in their own workload.

4.2.2 Competence

Another theme we identified was *competence*, which refers to skill-related competence (Salman et al., 2020). Participants described the specialist expertise of non-permanent workers as an advantage, particularly when such knowledge was lacking internally, when external perspectives enhanced problem-solving, or when diverse experiences enriched the team's capabilities.

> "*It wouldn't work at all without him (note: non-permanent worker) because he has real expertise that I don't have or haven't found elsewhere in our organization.*" ID 5, IT.

This theme is closely related to workload, as training efforts and additional responsibilities are minimized when the competence of the non-permanent workers is high. However, within this theme, it became particularly evident that the perceived benefits of collaborating with non-permanent workers were context dependent. When non-permanent workers brought specialized knowledge and expertise, participants described the collaboration more positively. Conversely, when non-permanent workers lacked qualifications, training, or job-related skills, collaboration was associated with an increased workload and thus more aligned with negative perceptions of collaboration.

> "*But if you don't know the clinic, the clientele, or the department, it's a classic case of needing a lot of guidance and getting overwhelmed. This is often the case with external staff.*" ID 20, nursing.

4.2.3 Responsibility

Additional responsibility is related to a lack of skill-related competence, as non-permanent workers with fewer job-related qualifications not only require more training and may assume fewer tasks, but also have a higher risk of making mistakes, for which some interviewees felt responsible.

> "*And it is a challenge for those who are working alone with this flexible worker, for example. It's a bit of a challenge to assess how much responsibility, at what point she can take responsibility on her own and where you need to keep an eye on her and support her, so to speak.*" ID 18, nursing.

4.2.4 Socialization

A further theme we identified was *socialization*. We interpret the proactive socialization behavior of non-permanent workers, drawing on socialization research (Ashford and Black, 1996), as reflecting a positive perception of collaboration. It refers to non-permanent workers who demonstrate proactive behaviors, such as seeking information and feedback, asking questions, building networks, or identifying tasks on their own. This behavior was described as helpful by permanent employees as it may alleviate the burden on them.

> "*To put it bluntly, it's also important that they are people who see the work, who see where there's something to be done, what else I could do, who ask.*" ID 22, nursing.

In this context, "duty to seek" rather than 'duty to provide' is mentioned as an important concept for permanent employees. However, the findings highlight a delicate balance between demonstrating proactive socialization behavior and exhibiting overconfident behavior. We identified passive motivation as a negative interpretation of collaboration, describing work roles who view their responsibilities as limited to completing isolated tasks or who rely on supervisors when issues arise (Parker, 2000). Interviewees mentioned lack of initiative and passive behavior as challenging.

> "*So what we couldn't use would be people who just passively wait for someone to tell them what to do. That would actually be useless in our environment.*" ID 6, IT.

4.2.5 Interpersonal relationships

Another theme was *interpersonal relationships* and relates to co-worker support (Bakker and Demerouti, 2007) as well as ostracism (Williams, 2007). When collaboration with non-permanent workers was described positively, permanent employees often emphasized appreciation of non-permanent workers, as well as the importance of not distinguishing between permanent and non-permanent workers.

> "*I think it's important that you don't make them feel (…) that they're flexible workers, that you treat them normally, like any other employee. And that they can have a voice and be involved.*" ID 5, IT.

Co-worker support from permanent employees is a relevant aspect of social support and includes providing assistance, offering feedback, motivating colleagues (Mehner et al., 2025), and facilitating integration. In relation to proactive socialization behavior, we interpret positive aspects as emerging not only from the integration of non-permanent workers, but also from their own proactive efforts to integrate into the organization. Ostracism was also identified as a sub-theme, with permanent employees reporting challenges in collaboration when non-permanent workers were excluded from regular team meetings.

> "*There are people who have a lot of trouble with external people being recognized as (...) team members (...). And then it's just the external person who's not included, or they're not included in team events, or you feel like a team, but just without them.*" ID 4, IT.

In addition, we interpret unrest and uncertainty as a negative perceived aspect of collaboration in blended teams. Permanent employees are faced with uncertainties related to working conditions, such as the often unclear duration of employment of the non-permanent workers, but also at the personal level, such as the personal characteristics, prior knowledge, and experience of non-permanent workers.

> "*Yes, we got along well, but it's different when you see people year after year and you can count on them being there than when they might be gone from 1 day to the next.*" ID 17, management.

Furthermore, interpersonal conflicts between permanent employees and non-permanent workers, may arise due to differences in salary structures, perspectives, or competition.

> "*I just notice that the pay gap between internal flexible workers and external workers is sometimes very large. And yes, when I look at it from my own perspective, I have such good people internally and it's understandable that they sometimes get frustrated when they realize that if they went to an external office, they would actually be paid significantly more for the same work.*" ID 20, nursing.

4.2.6 Working conditions

We identified *working conditions* as a relevant theme at the organizational level. Conducive work practices emerged as a

positively interpreted aspect in collaboration in blended teams as they contribute to creating clarity in processes, defining tasks and points of contact, and reducing the overall training effort. Examples include agile and self-organized ways of working with short iterations and clearly assigned tasks; internal flexible pools composed of workers familiar with the organization who can be deployed across departments as needed; continuity in collaborative routines through repeated assignments or longer durations of employment; and the implementation of a buddy system.

> "*(. . .) because we maintain our own pool, we certainly get a much higher quality of work from people than if we were to rely solely on external people, because they know the company. Certain processes are the same everywhere, which means we have a certain quality standard of work performance.*" ID 19, nursing.

Conversely, unfavorable organizational conditions, particularly the short duration of the assignment, were identified as key factors contributing to negative perceptions at the organizational level. Additionally, remote work and a high proportion of non-permanent staff within the team were highlighted as relevant aspects.

> "*And then we (...) suddenly had a skyrocketing demand. You had to pump in 20 people on the same day, for example, and that was for the permanent staff. (...) The more people you bring in, the worse it gets for both parties.*" ID 14, management.

4.2.7 Communication and information

In addition, *communication and information* emerged as a theme, including expectation management and clear communication by supervisors. Our findings suggest that, particularly in the context of blended teams, participants emphasized that communication needed to be both precise and explicit, especially regarding role expectations. Effective expectation management, typically facilitated by the responsible manager, is essential. This includes proactively informing the team about the integration of non-permanent workers, clarifying their roles, and setting realistic expectations.

> "*(. . .) that mutual expectations are expressed. Or that both the external person, who will also have expectations when he comes, is also a human being and not a robot, and the person responsible for the person, that you look at each other clearly: what are the expectations?*" ID 4, IT.

In the context of blended teams, this also means involving non-permanent workers in meetings and providing them with relevant documentation to prevent work overload for permanent employees. Other points perceived as challenges in collaboration at the organizational level include restricted access and slow information flow.

> *"Whenever possible, they don't really want external people working for us because, for example, they don't have access to our patient documentation system for privacy reasons. That means that when they do an activity, they still have to go to the permanent staff and say: "Can you please document that I did this and this and this?" So it's more of a burden in some cases."* ID 19, nursing.

While it is important to note the overarching trends across the dataset, it is also crucial to highlight how themes differ across occupational groups. Interviewees in management emphasized *proactive socialization behavior*, *conducive work practices*, and *skill-related competence*, while negative perceptions primarily involve *unfavorable organizational conditions*, *additional workload*, and the *lack of skill-related competence*. IT professionals emphasize the same positive aspects (*proactive socialization behavior*, *skill-related competence*, *conducive work practices*) but also emphasize *workload reduction*. Overall, interviewees from IT mentioned fewer negative interpretations of collaboration, which were centered on *additional workload* and *unfavorable organizational conditions*. Interviewees in nursing focused on *proactive socialization behavior*, *conducive work practices*, and *workload reduction*. Their primary negative perceptions included lack of *skill-related competence*, *restricted access to systems and slow flow of information*.

4.3 Discussion

Study 2 showed that across the interviews, most themes had dual manifestations and the findings indicate that collaboration with non-permanent workers may be perceived as ambivalent; collaboration introduces additional, sometimes unexpected obligations for permanent employees, such as increased responsibility or higher workload, which are generally associated with adverse PC outcomes (Bal et al., 2017). At the same time, permanent employees may perceive support as non-permanent workers help to reduce workload, contribute to high-quality work, or bring valuable expertise (Gan, 2025). Thus, permanent employees appear to experience both advantages and disadvantages of collaboration simultaneously.

In addition, the qualitative findings distinguish between themes reflecting direct collaboration experiences (e.g., *workload*, *competence*, *socialization*, *responsibility*, and *interpersonal relationships*) and themes reflecting organizational cues that shape these experiences. The themes *working conditions* and *communication and information* appear particularly important as organizational cues, as they shape whether the themes reflecting direct collaboration experience, are ultimately perceived as rather positive or negative. For example, internal flexible pools, buddy systems, and clear communication may signal organizational support and investment in effective collaboration, whereas restricted access to systems or slow information flows may signal limited support and poor coordination. Taken together, the findings suggest that the perception of collaboration in blended teams depends on how blended team practices are embedded in the organizational context. This interpretation also aligns

with prior work suggesting that outcomes of blended teams depend on contextual conditions. In their review, Liu et al. (2025) distinguish moderators at the individual, job, organizational, and environmental levels. Study 2 extends this perspective by showing that beyond these broad contextual categories, specific blended team practices serve as concrete organizational cues that shape how collaboration is interpreted. In particular, our findings identify which organizational conditions make positive versus negative interpretations of collaboration more likely.

5 General discussion

The present research investigated collaboration in blended teams from the perspective of permanent employees. First, we investigated the relationship between the perceived proportion of non-permanent workers in the team and attitudes of permanent employees and whether the relationship is moderated by POS. The main-effect hypotheses were not supported; only one moderation effect, concerning organizational trust, emerged. Study 2 underscores the complexity of how permanent employees perceive collaboration within blended teams.

Taken together, the findings of the two studies suggest that collaboration with non-permanent workers is experienced as nuanced rather than uniformly positive or negative. The implications of blended team composition may vary depending on how collaboration is interpreted by permanent employees and how blended team practices are organized, communicated and embedded in day-to-day collaboration. This interpretation is consistent with prior research showing that even if the majority of past studies indicate negative associations, associations involving non-permanent work arrangements are not uniformly negative (Liu et al., 2025) and depend on the contextual conditions under which non-permanent workers are deployed (Banerjee et al., 2012; George, 2003).

5.1 Theoretical implications

The findings of this study have several theoretical implications. First, they offer new insights into what it means for permanent employees to work with non-permanent workers, as suggested by various researchers (Cropanzano et al., 2023; Kraimer et al., 2005). Across the two studies, collaboration in blended teams did not emerge as uniformly negative. In Study 1, we did not find statistically significant main effects between the perceived proportion of non-permanent workers in the team and permanent employees' attitudes, and in Study 2, the same core themes of collaboration were often described in positive and negative terms. In this regard, our findings extend prior work by showing that collaboration with non-permanent workers can be paradoxical as it can simultaneously generate positive and negative perceptions (Hoque and Kirkpatrick, 2008). From a dynamic PC perspective (Rousseau et al., 2018) such ambivalent everyday interactions and experiences may be less likely to be perceived as disruptive and may instead be gradually integrated into the employment relationship over time.

Second, our findings highlight the importance of organizational and managerial conditions that shape how collaboration in blended teams is interpreted. Study 2 identified two themes at the organizational level in particular—working conditions and communication and information—that function as organizational cues that shape whether the same aspects of collaboration are perceived more positively or negatively. When organizations provide beneficial working conditions for blended teams or clear and transparent communication and information, blended team composition may be interpreted as supportive and well-coordinated. In contrast, restricted access, unclear expectations, or poor information flows may reinforce negative interpretations. Consistent with this view, POS emerged in Study 1 as one such contextual condition under which the association between the perceived proportion of non-permanent workers and organizational trust differed, such that the relationship was negative only when POS was low. This is in line with past research suggesting that high-quality social exchange relationships and support can diminish employees' perceptions of breach (Huang et al., 2024). However, because we did not directly measure PC breach, fulfillment, or specific perceived obligations, our conclusions concern PC-relevant interpretations of the employment relationship rather than direct evidence of PC change, breach or fulfillment.

Moreover, our findings contribute to signaling theory by showing that blended team composition does not convey a fixed signal for permanent employees. Instead, the blended team practices may signal different organizational priorities and intentions to permanent employees. In line with signaling theory and research on HR attributions (Guest et al., 2021; Nishii et al., 2008; Suazo et al., 2009), the use of non-permanent workers may be understood as signaling support and expertise but also cost reduction or instability. This distinction may help to explain why the associations involving blended teams are not uniform. Prior research suggests that hiring non-permanent workers to manage workload fluctuations or secured needed expertise can be positively connoted, whereas cost-driven or threat-inducing deployments are more likely to increase adverse reactions (Banerjee et al., 2012; De Cuyper et al., 2009; Kraimer et al., 2005; Von Hippel and Kalokerinos, 2012; Way et al., 2010). Our qualitative findings are consistent with this logic: permanent employees particularly valued collaboration when non-permanent workers reduced workload, brought relevant expertise, and supported effective interpersonal relationships. At the same time, concerns highlighted in previous studies, such as job insecurity (De Cuyper et al., 2009; Kraimer et al., 2005; Pearce, 1993), lower levels of loyalty and trust (George, 2003), limited career advancement opportunities (Banerjee et al., 2012; Geary, 1992), were less prominent in Study 2 and were not supported as statistically significant main effects in Study 1. In Study 2, participants mentioned insecurity in relation to frequent changes in non-permanent workers. In this regard, another reason why organizations rely on non-permanent staff, namely, cost savings (Cropanzano et al., 2023), does not seem to be the primary focus in our sample. However, even if our results suggest that blended team composition was not predominantly interpreted as a signal for replaceability or cost reduction, collaboration with non-permanent workers was still not uniformly positive. Taken together, these

findings suggest that the implications of blended team composition depend less on the perceived proportion of non-permanent workers in the team than on the meaning permanent employees attribute to collaboration with non-permanent workers.

In addition, our findings suggest that permanent employees in blended teams occupy a dual role—as organizational representatives and as colleagues—a combination that may influence team dynamics. Given that the core themes align with two of the three primary organizational goals for hiring non-permanent workers, that is, numerical and expertise (Cropanzano et al., 2023), these findings, viewed from the perspective of PC theory, emphasize the transactional nature of the exchange relationship between permanent employees and non-permanent workers. While PCs are traditionally understood as dyadic relationships between individuals and organizations—where the organization is typically represented by direct supervisors or HR (Conway and Pekcan, 2019)—in this case it is conceivable that permanent employees act more as representatives of the organization who mainly have a transactional relationship with non-permanent workers (Cropanzano et al., 2023; Scheel et al., 2013). It is now well-established that PCs also exist between proximal members, such as colleagues. However, in traditional teams, PCs are mostly relational among colleagues (Alcover et al., 2017). Moreover, some themes mirrored elements of the socialization process of new employees, such as proactive integration strategies and information seeking (Ashford and Black, 1996). Here, too, the organizational perspective becomes more apparent. Permanent employees often act as organizational representatives in blended teams and interact with non-permanent workers under more transactional expectations than those typically observed among colleagues. At the same time, aspects such as helping behaviors (Griffin et al., 2007) as well as contributions to the team (Price et al., 2006), which we categorized under skill-related competencies and workload reduction, are generally considered valuable for teamwork significance (Mathieu et al., 2017). In addition, proactive employee behavior leads to positive outcomes like team effectiveness (Griffin et al., 2007). Furthermore, peer support was found to positively relate to knowledge sharing and to be relevant for employee competence development (Mehner et al., 2025), which is also relevant for blended teams.

Furthermore, the prevalence of blended teams may vary across occupational groups, potentially resulting in different perceptions of collaboration with non-permanent workers among occupational and sector groups (George, 2003). In Study 1, separate occupational group-specific analyses revealed non-significant results despite an uneven distribution of non-permanent workers across occupational groups, suggesting that permanent employees' perceptions of blended teams are relatively consistent across occupational groups.

5.2 Practical implications

Our findings suggest that permanent employees' perceptions of collaboration with non-permanent workers are related not only to team composition itself, but also to how blended teams are organized, communicated, and supported. In particular, the themes of working conditions and communication and information in Study 2 suggest that blended team practices may be shaped in ways that make collaboration more likely to be interpreted positively. Based on the qualitative findings, practices described by participants as helpful included clear communication, internal pools of non-permanent workers, agile work practices, buddy formats, or continuity in collaboration. These practices may help make collaboration with non-permanent workers more likely to be experienced as supportive and less burdensome.

In addition, our findings underline the importance of communication in line with signaling-based perspectives on human resource management (HRM) (Guest et al., 2021). Collaboration with non-permanent workers may not always be interpreted neutrally; rather, our findings suggest that it can signal either support and expertise or cost reduction and replaceability. HRM may therefore have an important role not only in designing practices to manage blended teams, but also in communicating their rationale clearly and consistently so that permanent employees understand the intended purpose of these arrangements, and in strengthening permanent employees' perception of the employment relationship.

In addition, the qualitative findings suggest that interpersonal relationships may play a central role in blended teams. HR and line managers may therefore consider fostering an inclusive team environment (van den Groenendaal et al., 2023) in which non-permanent workers are treated as part of the team. Such efforts may help to address interpersonal conflicts and ostracism and strengthen coworker support.

5.3 Limitations and future research

While the study provides valuable and unexpected results, certain limitations should be acknowledged. Study 1 was designed as a cross-sectional study, which makes it impossible to demonstrate causal relationships. However, Spector (2019) points out that a cross-sectional design can still be useful for examining relationships between variables and exclude alternatives when combined with alternative data sources.

Additionally, we applied self-reported measures, which are not ideal due to common method bias (Podsakoff et al., 2003). However, common method bias seems to be less problematic in moderation analyses, as common method bias tends to weaken the moderation effects (Siemsen et al., 2010).

A further limitation concerns the conceptual breadth of the term non-permanent workers. In this study, we intentionally adopted an inclusive categorization to reflect organizational practice in knowledge-intensive contexts. Prior to the quantitative data collection, we conducted workshops and interviews with HR, line management, and procurement representatives, who identified a range of non-permanent worker profiles they rely on, with occupational group-specific differences (e.g., contractors in IT; temporary agency workers in nursing). The survey definition was communicated accordingly to enable respondents to consistently classify these worker groups within their organizational context. However, this approach may also limit conceptual precision, as different non-permanent work arrangements may relate differently to permanent employees' collaboration perceptions. While we accounted for occupational group-level differences, this does not

address potential variation between specific categories of non-permanent workers as suggested by Connelly and Gallagher (2004). In addition, organization and occupational group were strongly confounded in our sample, which limited our ability to disentangle organizational from occupational-context effects. Focusing on a specific category, such as contractors, might yield different results.

Related to this limitation, the key independent variable captures perceived rather than objective team composition. Although respondents were provided with a constant definition of non-permanent workers, the use of organization-specific terminology and the broad category may still have allowed some variation in respondents' interpretation, particularly in the post-COVID context, where "flexibility" is sometimes associated with remote or hybrid work arrangements, especially in IT-related roles. Moreover, we cannot ascertain whether non-permanent workers are mentally included by respondents when answering team-related attitudinal measures such as team commitment. Accordingly, the results should be interpreted as reflecting employees' perceptions of team composition. This is theoretically consistent with our focus on attitudinal outcomes, as our arguments build on the premise that individuals' attitudes are shaped by how they perceive their work environment (George et al., 2016). Furthermore, the possible nested structure of the quantitative data presents a limitation. We did not collect unique identifiers for teams. Therefore, we could not directly adjust for statistical dependence among employees working in the same team or unit. Future research should collect team- or unit-level identifiers and combine perceptual measures with objective HR data and focus on clearly defined categories to show category-specific dynamics.

Another limitation relates to the national context in which the study was conducted. The study was conducted in Switzerland, a labor market that is characterized by stability, high employment rates, combined with rising labor and skill shortages (OECD, 2024). In such an environment, permanent employees may have been less likely to interpret the deployment of non-permanent workers as threatening or a signal of replaceability. This may provide a plausible contextual interpretation of the comparatively low level of job insecurity in our sample. In addition, the low mean level and limited variance of job insecurity ($M = 1.72$, $SD = 0.66$) may have constrained the detection of associations involving job insecurity. Further research should therefore examine whether the present findings are replicated in other national contexts.

The voluntary participation of the interviewees in Study 2 presents a risk of self-selection bias, as participants who chose to be interviewed may have had particularly positive or negative experiences with collaboration in blended teams. In addition, the interviews do not provide objective insights into the workplace and may be biased by social desirability.

Future research investigating collaboration in blended teams from the perspective of permanent employees and non-permanent workers at the team level would make an important contribution. Expanding this multilevel perspective could be particularly valuable in understanding the dynamics of blended teams rather than only at the level of individual perceptions. Building on our focus on permanent employees' perceptions, future research could extend this perspective by examining team commitment dynamics from the perspective of non-permanent workers, including dual team commitment, and how these relate to cooperation patterns in blended teams. In addition, future research could adopt a dynamic PC research design to examine how collaboration in blended teams unfolds over time (Griep et al., 2018). Further studies could also build on our qualitative findings regarding proactive socialization behaviors and co-worker support to analyze social networks within blended teams (Wilkin et al., 2018). This would allow researchers to test more directly the role of socialization tactics and co-worker support in facilitating collaboration. A broader extension would be to examine whether the concept of blended teams should also include non-human agents. Given the rise of algorithmic management and interactions with artificial agents (Bankins and Formosa, 2020), future research could explore how both non-permanent workers and AI agents may shape the employment relationship.

6 Conclusion

Working in blended teams is increasingly common in today's organizations. We did not find statistically significant negative main-effect associations between the perceived proportion of non-permanent workers in teams and the attitudes of permanent employees. However, POS moderated the relationship between the perceived proportion of non-permanent workers in a team and organizational trust. Our qualitative findings further showed that collaboration in blended teams was experienced as ambivalent rather than uniformly negative or positive. Together, these findings suggest that the implications of blended team composition depend not simply on the perceived proportion of non-permanent workers, but on how collaboration is interpreted and on the organizational conditions in which it is embedded. In particular, supportive organizational conditions and clear, coherent communication appear to play an important role in shaping these interpretations.

With this research, we hope to inspire further studies on collaboration in blended teams and to encourage managers to create supportive organizational conditions that foster effective collaboration. Ultimately, this can contribute to a more resourceful and productive work environment for everyone.

Data availability statement

The quantitative raw data supporting the conclusions of this article will be made available by the authors upon request, without undue reservation. The qualitative interview data are not publicly available due to confidentiality and privacy considerations.

Ethics statement

The studies involving humans were approved by University of Applied Sciences and Arts Northwestern Switzerland. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

CS: Writing – review & editing, Writing – original draft. TR: Writing – review & editing. TS: Writing – review & editing. MZ: Writing – review & editing.

Funding

The author(s) declared that financial support was received for this work and/or its publication. This research project was funded by Innosuisse. The reference number is 47234.1 IP-SBM. Open access publication was financially supported by the Land Schleswig-Holstein within the funding program Open Access-Publikationsfonds.

Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declared that Generative AI was used in the creation of this manuscript. During the preparation of this manuscript, the author(s) used ChatGPT 4, Microsoft 365 Copilot, and DeepL to improve the clarity and language of the text. All content was subsequently reviewed and revised by the author(s), who take full responsibility for the final manuscript.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/forgp.2026.1800438/full#supplementary-material

References

Alcover, C.-M., Rico, R., Turnley, W. H., and Bolino, M. C. (2017). Understanding the changing nature of psychological contracts in 21st century organizations: a multiple-foci exchange relationships approach and proposed framework. *Organ. Psychol. Rev.* 7, 4–35. doi: 10.1177/2041386616628333

Ambrose, M. L., and Kulik, C. T. (1989). The influence of social comparisons on perceptions of procedural fairness. *J. Bus. Psychol.* 4, 129–138. doi: 10.1007/BF01023043

Ang, S., and Slaughter, S. A. (2001). Work outcomes and job design for contract versus permanent information systems professionals on software development teams. *MIS Q.* 25, 321–350. doi: 10.2307/3250920

Ashford, S. J., and Black, J. S. (1996). Proactivity during organizational entry: the role of desire for control. *J. Appl. Psychol.* 81, 199–214. doi: 10.1037/0021-9010.81.2.199

Ashford, S. J., Lee, C., and Bobko, P. (1989). Content, cause, and consequences of job insecurity: a theory-based measure and substantive test. *Acad. Manag. J.* 32, 803–829. doi: 10.2307/256569

Bajorek, Z., and Guest, D. (2019). The impact of temporary staff on permanent staff in accident and emergency departments. *J. Organ. Effect.* 6, 2–18. doi: 10.1108/JOEPP-09-2018-0074

Bakker, A. B., and Demerouti, E. (2007). The job demands–resources model: State of the art. *J. Manag. Psychol.* 22, 309–328. doi: 10.1108/02683940710733115

Bal, P. M., Hofmans, J., and Polat, T. (2017). Breaking psychological contracts with the burden of workload: a weekly study of job resources as moderators. *Appl. Psychol.* 66, 143–167. doi: 10.1111/apps.12079

Bal, P. M., and Izak, M. (2021). Paradigms of flexibility: a systematic review of research on workplace flexibility. *Eur. Manag. Rev.* 18, 37–50. doi: 10.1111/emre.12423

Ballas, L., Schuster, T., and Pflaum, A. (2024). Unravelling psychological contracts in a digital age of work: a systematic literature review. *Eur. J. Work Organ. Psychol.* 33, 614–631. doi: 10.1080/1359432X.2024.2341821

Banerjee, M., Tolbert, P. S., and Dicicco, T. (2012). Friend or foe? The effects of contingent employees on standard employees' work attitudes. *Int. J. Hum. Resour. Manag.* 23, 2180–2204. doi: 10.1080/09585192.2011.637061

Bankins, S., and Formosa, P. (2020). When AI meets PC: exploring the implications of workplace social robots and a human-robot psychological contract. *Eur. J. Work Organ. Psychol.* 29, 215–229. doi: 10.1080/1359432X.2019.1620328

Bankins, S., Griep, Y., and Hansen, S. D. (2020). Charting directions for a new research era: addressing gaps and advancing scholarship in the study of psychological contracts. *Eur. J. Work Organ. Psychol.* 29, 159–163. doi: 10.1080/1359432X.2020.1737219

Barley, S. R., and Kunda, G. (2004). *Gurus, Hired Guns, and Warm Bodies: Itinerant Experts in a Knowledge Economy*. Princeton, NJ: Princeton University Press.

Bishop, J. W., and Scott, K. D. (2000). An examination of organizational and team commitment in a self-directed team environment. *J. Appl. Psychol.* 85, 439–450. doi: 10.1037/0021-9010.85.3.439

Blau, P. M. (1964), *Exchange and Power in Social Life*. New York, NY: Wiley.

Bonet, R., Elvira, M., and Visintin, S. (2024). Hiring temps but losing perms? Temporary worker inflows and voluntary turnover of permanent employees. *Work Employ. Soc.* 38, 83–102. doi: 10.1177/09500170221103135

Broetje, S., Jenny, G. J., and Bauer, G. F. (2020). The key job demands and resources of nursing staff: an integrative review of reviews. *Front. Psychol.* 11:84. doi: 10.3389/fpsyg.2020.00084

Broschak, J. P., and Davis-Blake, A. (2006). Mixing standard work and nonstandard deals: the consequences of heterogeneity in employment arrangements. *Acad. Manag. J.* 49, 371–393. doi: 10.5465/amj.2006.20786085

Bundesamt für Statistik [BFS] (2026). *Arbeitsverträge (Dauer, Stellenvermittlung, Praktikum), Dienstalter*. Available online at: https://www.bfs.admin.ch/bfs/de/home/statistiken/arbeit-erwerb/erwerbstaetigkeit-arbeitszeit/arbeitsbedingungen/arbeitsvertraege.html (Accessed May 16, 2026).

Cappelli, P., and Keller, J. R. (2013). Classifying work in the new economy. *Acad. Manag. Rev.* 38, 575–596. doi: 10.5465/amr.2011.0302

Chang, J., O'Neill, G., and Travaglione, A. (2016). Demographic influences on employee trust towards managers. *Int. J. Organ. Anal.* 24, 246–260. doi: 10.1108/IJOA-06-2014-0774

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd ed.)*. Routledge. doi: 10.4324/9780203771587

Colquitt, J. A. (2001). On the dimensionality of organizational justice: a construct validation of a measure. *J. Appl. Psychol.* 86, 386–400. doi: 10.1037/0021-9010.86.3.386

Connelly, B. L., Certo, S. T., Reutzel, C. R., DesJardine, M. R., and Zhou, Y. S. (2025). Signaling theory: state of the theory and its future. *J. Manag.* 51, 24–61. doi: 10.1177/01492063241268459

Connelly, C. E., and Gallagher, D. G. (2004). Emerging trends in contingent work research. *J. Manag.* 30, 959–983. doi: 10.1016/j.jm.2004.06.008

Conway, N., and Briner, R. B. (2002). A daily diary study of affective responses to psychological contract breach and exceeded promises. *J. Organ. Behav.* 23, 287–302. doi: 10.1002/job.139

Conway, N., and Pekcan, C. (2019). "Psychological contract research: older, but is it wiser?," in *Handbook of Research on the Psychological Contract at Work*, eds. Y. Griep and C. Cooper (Cheltenham: Edward Elgar Publishing), 10–34. doi: 10.4337/9781788115681.00009

Coyle-Shapiro, J., and Conway, N. (2004). "Commonalities and conflicts between different perspectives of the employment relationship: towards a unified perspective," in *The Employment Relationship: Examining Psychological and Contextual Perspectives*, eds. J. A. Coyle-Shapiro, L. M. Shore, M. S. Taylor, and L. E. Tetrick (Oxford: Oxford University Press Inc.), 119–132. doi: 10.1093/oso/9780199269136.003.0006

Coyle-Shapiro, J. A., and Conway, N. (2005). Exchange relationships: examining psychological contracts and perceived organizational support. *J. Appl. Psychol.* 90, 774–781. doi: 10.1037/0021-9010.90.4.774

Cropanzano, R., Keplinger, K., Lambert, B., Caza, B., and Ashford, S. (2023). The organizational psychology of gig work: an integrative conceptual review. *J. Appl. Psychol.* 108, 492–519. doi: 10.1037/apl0001029

Cross, D., Kulichyova, A., Altman, E. J., Garavan, T., Malik, A., Petrovic, J., et al. (2024). "Workforce and HR ecosystems: a generative discussion on synergies, tensions and future directions," in *Academy of Management Annual Meeting Proceedings2024* (Chicago, IL: Academy of Management). doi: 10.5465/AMPROC.2024.19333symposium

De Cuyper, N., Sora, B., De Witte, H., Caballer, A., and Peiró, J. M. (2009). Organizations' use of temporary employment and a climate of job insecurity among belgian and spanish permanent workers. *Econ. Ind. Democr.* 30, 564–591. doi: 10.1177/0143831X09336808

De Witte, H. (2000). "Arbeidsethos en jobonzekerheid: meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [workethic and job insecurity: assessment and consequences for well-being, satisfaction and performance at work]," in *Van Groep Naar Gemeenschap [From Group to Community]*, eds. R. Bouwen, K. De Witte, H. De Witte, and T. Taillieu (Leuven: Garant), 325–350.

Dulac, T., Coyle-Shapiro, J., Henderson, D., and Wayne, S. (2008). Not all responses to breach are the same: the interconnection of social exchange and psychological contract processes in organizations. *Acad. Manag. J.* 51, 1079–1098. doi: 10.5465/amj.2008.35732596

Eisenberger, R., Cummings, J., Armeli, S., and Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *J. Appl. Psychol.* 82, 812–820. doi: 10.1037/0021-9010.82.5.812

Eisenberger, R., Huntington, R., Hutchison, S., and Sowa, D. (1986). Perceived organizational support. *J. Appl. Psychol.* 71, 500–507. doi: 10.1037/0021-9010.71.3.500

Eldor, L., and Cappelli, P. (2021). The use of agency workers hurts business performance: an integrated indirect model. *Acad. Manag. J.* 64, 824–850. doi: 10.5465/amj.2019.0392

Eurostat (2024). *Temporary and Permanent Employment – Statistics*. Available online at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Temporary_and_permanent_employment_-_statistics (Accessed May 16, 2026).

Faul, F., Erdfelder, E., Buchner, A., and Lang, A.-G. (2009). Statistical power analyses using g*power 3.1: tests for correlation and regression analyses. *Behav. Res. Methods* 41, 1149–1160. doi: 10.3758/BRM.41.4.1149

Felfe, J., and Franke, F. (2012), *Commitment-Skalen (Commit). Fragebogen zur Erfassung von Commitment Gegenüber Organisation, beruf/Tätigkeit, Team, Führungskraft und Beschäftigungsform*. Bern: Huber.

Gan, I. (2025). The good temps whom perms welcome: Making sense of what truly matters. *Qual. Res. Rep. Commun.*, 1–9. doi: 10.1080/17459435.2025.2568502

Geary, J. F. (1992). Employment flexibility and human resource management: the case of three american electronics plants. *Work Employ. Soc.* 6, 251–270. doi: 10.1177/095001709262005

George, E. (2003). External solutions and internal problems: the effects of employment externalization on internal workers' attitudes. *Organ. Sci.* 14, 386–402. doi: 10.1287/orsc.14.4.386.17488

George, E., Chattopadhyay, P., and Ng, C. K. (2016). The relationship between workgroup blending and perceived organizational inducements: the mediating roles of tasks and relationships. *Aust. J. Manag.* 41, 538–562. doi: 10.1177/0312896215595680

George, E., Chattopadhyay, P., and Zhang, L. L. (2012). Helping hand or competition? The moderating influence of perceived upward mobility on the relationship between blended workgroups and employee attitudes and behaviors. *Organ. Sci.* 23, 355–372. doi: 10.1287/orsc.1100.0606

Greenhalgh, L., and Rosenblatt, Z. (1984). Job insecurity: toward conceptual clarity. *Acad. Manag. Rev.* 9, 438–448. doi: 10.2307/258284

Griep, Y. (2025). Breaking promises, breaking trust: how psychological contract breach relates to trust trajectories and performance. *Eur. Manag. J.* doi: 10.1016/j.emj.2025.10.007. [Epub ahead of print].

Griep, Y., Vantilborgh, T., Hansen, S. D., and Conway, N. (2018). Editorial: Unravelling the role of time in psychological contract processes. *Front. Psychol.* 9:813. doi: 10.3389/fpsyg.2018.00813

Griffin, M., Neal, A., and Parker, S. (2007). A new model of work role performance: positive behavior in uncertain and interdependent contexts. *Acad. Manag. J.* 50, 327–347. doi: 10.5465/amj.2007.24634438

Guest, D. (2004). The psychology of the employment relationship: an analysis based on the psychological contract. *Appl. Psychol.* 53, 541–555. doi: 10.1111/j.1464-0597.2004.00187.x

Guest, D., Isaksson, K., and De Witte, H. (2010). *Employment Contracts, Psychological Contracts, and Employee Well-being: An International Study*. New York, NY: Oxford University Press. doi: 10.1093/acprof:oso/9780199542697.001.0001

Guest, D. E., Sanders, K., Rodrigues, R., and Oliveira, T. (2021). Signalling theory as a framework for analysing human resource management processes and integrating human resource attribution theories: a conceptual analysis and empirical exploration. *Hum. Resour. Manag. J.* 31, 796–818. doi: 10.1111/1748-8583.12326

Hayes, A. F. (2022). *Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach*. New York, NY: The Guilford Press.

Ho, V. T., and Levesque, L. L. (2005). With a little help from my friends (and substitutes): social referents and influence in psychological contract fulfillment. *Organ. Sci.* 16, 275–289. doi: 10.1287/orsc.1050.0121

Hoque, K., and Kirkpatrick, I. (2008). Making the core contingent: professional agency work and its consequences in UK social services. *Public Adm.* 86, 331–344. doi: 10.1111/j.1467-9299.2007.00704.x

Huang, H., Cai, Z., Zhao, W., and Zhou, Z. (2024). Experience layoffs, work engagement and the buffering effect of POS: a psychological contract perspective. *Pers. Rev.* 53, 2257–2272. doi: 10.1108/PR-09-2022-0645

Huang, J. L., Bowling, N. A., and Wu, D. (2025). Organizational behavior in the gig economy: contributions, challenges, and new directions. *J. Organ. Behav.* 46, 973–979. doi: 10.1002/job.70001

Keim, A. C., Landis, R. S., Pierce, C. A., and Earnest, D. R. (2014). Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity. *J. Occup. Health Psychol.* 19, 269–290. doi: 10.1037/a0036743

King, D., Svensson, S., and Wei, Z. (2017). Not always a quick fix: the impact of employing temporary agency workers on retention in the australian aged care workforce. *J. Ind. Relat.* 59, 85–103. doi: 10.1177/0022185616673867

Kraimer, M. L., Wayne, S. J., Liden, R. C., and Sparrowe, R. T. (2005). The role of job security in understanding the relationship between employees' perceptions of temporary workers and employees' performance. *J. Appl. Psychol.* 90, 389–398. doi: 10.1037/0021-9010.90.2.389

Kuckartz, U., and Rädiker, S. (2023), *Qualitative Content Analysis: Methods, Practice and Software. Second edition.* London: SAGE Publications Ltd. doi: 10.4324/9781003213277-57

Liu, M., Li, Y., Lin, Z., Zhou, J., and Liu, S. (2025). The cost of 'cost reduction': an integrative review of blended workgroups. *Hum. Resour. Manag. Rev.* 35, 1–23. doi: 10.1016/j.hrmr.2024.101054

Mathieu, J. E., Hollenbeck, J. R., van Knippenberg, D., and Ilgen, D. R. (2017). A century of work teams in the journal of applied psychology. *J. Appl. Psychol.* 102, 452–467. doi: 10.1037/apl0000128

Mehner, L., Rothenbusch, S., and Kauffeld, S. (2025). How to maximize the impact of workplace training: a mixed-method analysis of social support, training transfer and knowledge sharing. *Eur. J. Work Organ. Psychol.* 34, 201–217. doi: 10.21125/iceri.2023.2228

Morrison, E. W., and Robinson, S. L. (1997). When employees feel betrayed: a model of how psychological contract violation develops. *Acad. Manag. Rev.* 22, 226–256. doi: 10.2307/259230

Ng, T. W. H., and Feldman, D. C. (2010). The relationships of age with job attitudes: a meta-analysis. *Pers. Psychol.* 63, 677–718. doi: 10.1111/j.1744-6570.2010.01184.x

Nishii, L. H., Lepak, D. P., and Schneider, B. (2008). Employee attributions of the "why" of HR practices: their effects on employee attitudes and behaviors, and customer satisfaction. *Pers. Psychol.* 61, 503–545. doi: 10.1111/j.1744-6570.2008.00121.x

OECD (2024). *OECD Economic Surveys: Switzerland 2024*. Paris: OECD Publishing.

Parker, S. (2000). From passive to proactive motivation: the importance of flexible role orientations and role breadth self-efficacy. *Appl. Psychol.* 49, 447–469. doi: 10.1111/1464-0597.00025

Pearce, J. L. (1993). Toward an organizational behavior of contract laborers: their psychological involvement and effects on employee co-workers. *Acad. Manag. J.* 36, 1082–1096. doi: 10.2307/256646

Podsakoff, P., MacKenzie, S., Lee, J.-Y., and Podsakoff, N. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88, 879–903. doi: 10.1037/0021-9010.88.5.879

Poethke, U., Klasmeier, K. N., Diebig, M., Hartmann, N., and Rowold, J. (2019). Entwicklung eines fragebogens zur erfassung zentraler merkmale der arbeit 4.0. *Z. Arbeits Organ. Psychol. AO* 63, 129–151. doi: 10.1026/0932-4089/a000298

Pollio, C., Landini, F., Prodi, E., and Arrighetti, A. (2025). Does temporary employment undermine the quality of permanent jobs? Evidence from the manufacturing industry. *Econ. Polit.* 42, 703–743. doi: 10.1007/s40888-025-00377-y

Price, K. H., Harrison, D. A., and Gavin, J. H. (2006). Withholding inputs in team contexts: member composition, interaction processes, evaluation structure, and social loafing. *J. Appl. Psychol.* 91, 1375–1384. doi: 10.1037/0021-9010.91.6.1375

Robinson, S. L. (1996). Trust and breach of the psychological contract. *Adm. Sci. Q.* 41, 574–599. doi: 10.2307/2393868

Robinson, S. L., and Rousseau, D. M. (1994). Violating the psychological contract: not the exception but the norm. *J. Organ. Behav.* 15, 245–259. doi: 10.1002/job.4030150306

Rosseel, Y. (2012). Lavaan: an r package for structural equation modeling. *J. Stat. Softw.* 48, 1–36. doi: 10.18637/jss.v048.i02

Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employ. Respons. Rights J.* 2, 121–139. doi: 10.1007/BF01384942

Rousseau, D. M. (1995). *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*. Thousand Oaks, CA: SAGE. doi: 10.4135/9781452231594

Rousseau, D. M., Hansen, S. D., and Tomprou, M. (2018). A dynamic phase model of psychological contract processes. *J. Organ. Behav.* 39, 1081–1098. doi: 10.1002/job.2284

Rousseau, D. M., Sitkin, S. B., Burt, R. S., and Camerer, C. (1998). Introduction to special topic forum: not so different after all: a cross-discipline view of trust. *Acad. Manag. Rev.* 23, 393–404. doi: 10.5465/amr.1998.926617

Rudolph, C. W., and Zacher, H. (2026). A virtuous cycle: reciprocal relations between work flexibilization and perceived organizational support. *J. Occup. Organ. Psychol.* 99:e70077. doi: 10.1111/joop.70077

Saldaña, J. (2021). *The Coding Manual for Qualitative Researchers (4th ed)*. London: SAGE Publications Ltd.

Salman, M., Ganie, S. A., and Saleem, I. (2020). The concept of competence: a thematic review and discussion. *Eur. J. Train. Dev.* 44, 717–742. doi: 10.1108/EJTD-10-2019-0171

Scheel, T. E., Rigotti, T., and Mohr, G. (2013). HR practices and their impact on the psychological contracts of temporary and permanent workers. *Int. J. Hum. Resour. Manag.* 24, 285–307. doi: 10.1080/09585192.2012.677462

Schreuder, F., Schalk, R., and De Jong, J. (2017). Psychological contracts in self-directed work teams. *Team Perform. Manag. Int. J.* 23, 136–155. doi: 10.1108/TPM-07-2016-0035

Shore, L., and Tetrick, L. (1994). "The psychological contract as an explanatory framework in the employment relationship," in *Trends in Organizational Behavior*, eds. C. Cooper and D. Rousseau (Chichester: Wiley), 91–109.

Siemsen, E., Roth, A., and Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organ. Res. Methods* 13, 456–476. doi: 10.1177/1094428109351241

Spector, P. E. (2019). Do not cross me: optimizing the use of cross-sectional designs. *J. Bus. Psychol.* 34, 125–137. doi: 10.1007/s10869-018-09613-8

Suazo, M. M., Martínez, P. G., and Sandoval, R. (2009). Creating psychological and legal contracts through human resource practices: a signaling theory perspective. *Hum. Resour. Manag. Rev.* 19, 154–166. doi: 10.1016/j.hrmr.2008.11.002

Sulbout, J., Pichault, F., Jemine, G., and Naedenoen, F. (2022). Are skilled contingent workers neglected? Evidence from a cross-sector multiple case study on organizational career management practices. *Eur. Manag. J.* 40, 429–440. doi: 10.1016/j.emj.2021.07.005

Sverke, M., Hellgren, J., and Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *J. Occup. Health Psychol.* 7, 242–264. doi: 10.1037/1076-8998.7.3.242

van den Groenendaal, S. M. E., Freese, C., Poell, R. F., and Kooij, D. T. A. M. (2023). Inclusive human resource management in freelancers' employment relationships: the role of organizational needs and freelancers' psychological contracts. *Hum. Resour. Manag. J.* 33, 224–240. doi: 10.1111/1748-8583.12432

Vandenberghe, C., Bentein, K., and Stinglhamber, F. (2004). Affective commitment to the organization, supervisor, and work group: antecedents and outcomes. *J. Vocat. Behav.* 64, 47–71. doi: 10.1016/S0001-8791(03)00029-0

Von Hippel, C., and Kalokerinos, E. K. (2012). When temporary employees are perceived as threatening: antecedents and consequences. *Leadersh. Organ. Dev. J.* 33, 200–216. doi: 10.1108/01437731211203483

Way, S. A., Lepak, D. P., Fay, C. H., and Thacker, J. W. (2010). Contingent workers' impact on standard employee withdrawal behaviors: does what you use them for matter? *Hum. Resour. Manag.* 49, 109–138. doi: 10.1002/hrm.20336

Wayne, S. J., Shore, L. M., Bommer, W. H., and Tetrick, L. E. (2002). The role of fair treatment and rewards in perceptions of organizational support and leader-member exchange. *J. Appl. Psychol.* 87, 590–598. doi: 10.1037/0021-9010.87.3.590

Wayne, S. J., Shore, L. M., and Liden, R. C. (1997). Perceived organizational support and leader-member exchange: a social exchange perspective. *Acad. Manag. J.* 40, 82–111. doi: 10.2307/257021

Wilkin, C. L., De Jong, J. P., and Rubino, C. (2018). Teaming up with temps: the impact of temporary workers on team social networks and effectiveness. *Eur. J. Work Organ. Psychol.* 27, 204–218. doi: 10.1080/1359432X.2017.1418329

Williams, K. D. (2007). Ostracism. *Annu. Rev. Psychol.* 58, 425–452. doi: 10.1146/annurev.psych.58.110405.085641

Woodrow, C., Erdem, C., and Guest, D. E. (2024). The role of previous experience in the analysis of the psychological contract and its outcomes during the socialization process: a signalling theory perspective. *Int. J. Hum. Resour. Manag.* 35, 3145–3171. doi: 10.1080/09585192.2024.2401582

Zhao, H., Wayne, S. J., Glibkowski, B. C., and Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Pers. Psychol.* 60, 647–680. doi: 10.1111/j.1744-6570.2007.00087.x