Tit for Tat? Linking Congruence in Receiving and Providing Coworker Feedback to Affective Trust

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Abstract

Purpose – Scholars emphasize the need to investigate the so-called 'feedback environment' to better understand feedback processes at work. Given the prevalence of team-based work structures and flattening hierarchies, we focus on the 'coworker feedback environment' (CFE). Studies on the CFE lack incorporation of employees' own behavior toward coworkers, but it is crucial to consider both roles: research subjects as feedback receivers *and* providers. Hence, we supplement the traditional perspective considering *received* CFE with perceptions about the *provided* CFE. Based on this, we discuss CFE (in-)congruence in relation to affective trust.

Design/methodology/approach – Grounded in Social Exchange Theory, we hypothesize a rising ridge asymmetric congruence model. This is tested by cubic polynomial regressions accompanied by response surface analysis based on survey data of 312 employees. Two additional exploratory analyses deepen the insights.

Findings – Our results indicate higher affective trust when CFE behavior is perceived as congruent, along with a rising ridge (i.e., linear level) effect. The less CFE is reciprocated, the lower the affective trust. This was particularly pronounced in the case of under-receiving and reinforced through an employee's feedback orientation. We also found differences between CFE facets.

Originality – This study advances CFE research in terms of both content and methodology by conducting a referent shift and investigating (in-)congruence. We point out promising avenues for future research and offer practitioners valuable insights into feedback relationships.

Keywords Affective trust, Congruence, Coworker, Cubic polynomial regression, Feedback, Feedback environment, Feedback orientation, Reciprocity, Response surface analysis, Trust

Paper type Research paper

Introduction

Feedback processes inherently encompass feedback reception and provision, but research on the so-called 'feedback environment' is typically limited to the former perspective (Anseel and Brutus, 2019; Jansson and Kangas, 2025). This is a considerable shortcoming, given that "by only tapping into the feedback perceptions of feedback receivers, this perspective suffers [from] a lack of attention to the dynamic interplay between feedback-giver and feedback-seeker" (Anseel and Brutus, 2019, p. 35). Referring to social support exchange, Berg et al. (2025) likewise encourage the study of reciprocated exchange by considering both reception and provision simultaneously. This seems to be particularly important when investigating hierarchically equal coworkers. Therefore, the present study aims to introduce novel perspectives on the 'coworker feedback environment' (CFE), which is about contextual aspects of everyday feedback processes between coworkers and a form of social support (Armon et al., 2023; Steelman et al., 2004).

More specifically, we look at how employees perceive their own CFE behavior toward a coworker (and not just vice versa). Thus, our research subjects are not only receivers of feedback but also become a source of feedback for their coworkers. In this regard, our quantitative study differs from the qualitative study by Jansson and Kangas (2025; published in *Personnel Review*), who looked at supervisors as a feedback source for their subordinates without considering mutual feedback in these dyadic relationships. Nonetheless, they discussed dyadic feedback interactions in light of reciprocity and imbalanced effort, which we take up below.

We wondered: do employees behave toward their coworkers in the same way as the coworkers behave toward them? The CFE perception about oneself is hereafter referred to as CFE-S (self), and the traditional CFE perspective (i.e., perception about a coworker's behavior)

is denoted as CFE-O (other). To be more precise, the newly defined construct CFE-S is a modified version of the CFE that captures survey respondents as a source of feedback for others (i.e., as feedback providers for their coworkers) instead of vice versa. Along these lines, CFE-S is defined as perceptions of one's own behavior toward a coworker concerning the facets of the feedback environment. By contrast, CFE-O is about that coworker's behavior toward oneself. Notably, CFE-O differs slightly from the conceptualization by Steelman *et al.* (2004) because we intentionally referred to one coworker (singular), while they related it to several coworkers (plural). In other words, CFE-O captures perceptions about the feedback environment someone receives from a specific coworker instead of a larger group of coworkers.

Building upon Social Exchange Theory (Blau, 1964), it is reasonable to expect negative consequences if someone perceives CFE-S as higher than CFE-O (i.e., 'under-receiving'). After all, one would provide a more supportive CFE oneself than one would receive. Thus, one's dedication, demonstrated through conducive CFE behavior, is not reciprocated. In turn, this could weaken the interpersonal relationship expressed by having less trust in the respective coworker. Interpersonal trust is a psychological state that comprises an affect-based and cognition-based component. While the former is about care and concern, the latter captures the trustee's reliability, dependability, and competence (Costa *et al.*, 2018; McAllister, 1995). By providing a supportive CFE, coworkers particularly demonstrate care and concern for the receiver (e.g., due to the effort they invest in formulating helpful and thoughtful feedback and being available if somebody needs feedback). Thus, we focus on affective trust in a coworker. Analyzing potential incongruence between perceptions of CFE-S and CFE-O and examining its relationship to trust in that other person is important for several reasons.

First, trust is a powerful facilitator for numerous outputs, such as job satisfaction and

performance (Breuer *et al.*, 2016). This reinforces the need to investigate potential antecedents of trust. Trust becomes especially important in today's work environments, which are characterized by, among others, uncertainty as well as virtual collaboration, which limits monitoring possibilities (De Jong *et al.*, 2016; Romeike *et al.*, 2016b). Collaboration with others is crucial in many occupations, and trust helps to mitigate the associated risk (Mayer *et al.*, 1995).

Second, due to the scarcity of CFE studies (Armon *et al.*, 2023; Katz *et al.*, 2021) and its growing importance, we examine feedback processes between coworkers. By doing so, we not only measure one's perception of CFE-O but also introduce CFE-S. Contrasting these perspectives allows us to analyze the feedback environment more deeply. Such a comparison addresses the feedback relationship between an employee and his or her coworker, and we examine an important dependent variable (i.e., affective trust) that emerges upon social exchange between these individuals.

Third, an effect of the feedback environment on trust was established in former studies, although these studies are usually limited to supervisor-subordinate relationships. For instance, Bak (2020) found support for the hypothesis that a supportive supervisor feedback environment fosters trust in the supervisor. A strong positive association between these constructs was also affirmed in the meta-analysis by Katz *et al.* (2021). Besides considering coworkers as a feedback source and trustee, it is also time to go beyond such rather simple effects by analyzing relationships in more depth and including perceptions about one's own feedback provision.

Drawing conclusions based on difference scores is strongly criticized (Woo *et al.*, 2008) as subtracting one CFE construct from the other does not adequately account for potential rising ridge effects (i.e., whether the level at which the predictors are congruent matters; Atwater *et al.*, 1998). Instead, several scholars recommend using polynomial regressions accompanied by

response surface analyses (RSAs; Audenaert et al., 2018; Benlian, 2014; Humberg et al., 2019; Shanock et al., 2010), and we employed this analysis. Consequently, we will analyze a three-dimensional surface. By contrast, simple regressions with difference scores would suffer from information loss due to their two-dimensional nature. Taken together, we formulate the following research question: Considering the relationship between CFE-S and CFE-O, how do their degree of agreement, their distance from one another, and the direction of the distance from each other relate to affective trust in a coworker?

After explaining the CFE and congruence effects in more detail, we derive a rising ridge asymmetric congruence model, which will be tested by means of cubic polynomial regressions with RSA based on survey data from 312 employees. This is supplemented by additional exploratory analyses to further enhance our understanding of differences between CFE-S and CFE-O (i.e., feedback orientation as a moderator and comparisons at the facet level). This study makes important contributions by advancing CFE research in terms of content and methodology and providing valuable insights for practitioners. More precisely, we conduct a referent shift by capturing one's own CFE behavior, consider the reciprocal nature of coworker feedback processes, and conduct a sophisticated RSA accounting for rising ridge and asymmetry effects. Thereby, we foster the scientific discourse on feedback environments and provide novel insights into how coworker feedback dynamics shape interpersonal trust.

Theoretical Background

Coworker Feedback Environment

The relevance of feedback is largely undisputed, and its value is particularly evident in today's dynamic environments. Closely related to the feedback message itself is the feedback environment. Steelman *et al.* (2004) define the feedback environment as "contextual aspects of

day-to-day supervisor-subordinate and coworker-coworker feedback processes rather than [...] the formal performance appraisal feedback session" (p. 166). Their well-established scale, which can refer to supervisors as well as coworkers as a source of feedback, includes seven facets: source credibility, feedback quality, feedback delivery, favorable feedback, unfavorable feedback, source availability, and promoting feedback-seeking. The supportiveness of the feedback environment depends on the manifestation of these facets, with higher facet values leading to a more supportive environment (Whitaker et al., 2007). The more conducive the feedback environment is, the more likely, among others, high levels of affective commitment, perceived organizational support, trust, and performance (Bak, 2020; Katz et al., 2021). To explain these positive effects of the feedback environment, scholars draw on the Social Exchange Theory, which "is among the most influential conceptual paradigms for understanding workplace behavior" (Cropanzano and Mitchell, 2005, p. 874) and postulates a "felt obligation to reciprocate when provided with resources by others" (Dahling et al., 2017, p. 135).

Justified by the greater authority of supervisors, previous studies have often been limited to the supervisor feedback environment, thus neglecting coworkers (Dahling *et al.*, 2017; Katz *et al.*, 2021). In light of the increasing prevalence of team-based work structures, feedback from coworkers is becoming increasingly widespread (Stankevičiūtė and Wereda, 2019). Coworkers often have different insights into work processes and outcomes than supervisors (De Stobbeleir *et al.*, 2020; Young and Steelman, 2014). Besides, coworkers tend to be more approachable (Gong *et al.*, 2019) and are less influential in terms of rewards (De Stobbeleir *et al.*, 2020). In turn, this might foster feedback processes in terms of frequency and openness. Taken together, coworkers are a valuable source of feedback, but previous studies about the feedback environment seldom analyzed coworker-coworker relationships (Armon *et al.*, 2023; Katz *et al.*,

2021).

More importantly, neglecting employees' own CFE behavior is a major shortcoming of previous research (Anseel and Brutus, 2019). Following Dahling et al. (2017), perceptions about the feedback environment emerge through social exchange, which is why our hypotheses are guided by Social Exchange Theory (Blau, 1964). Factoring in CFE-S could significantly advance our understanding of feedback processes in bilateral relationships, fostering the understanding of social exchange and reciprocity (Berg et al., 2025). Thus, we investigate congruence and incongruence between CFE-S and CFE-O from a social exchange perspective. Specifically, we examine homeomorphic reciprocity¹; a form of equivalence where exchanges are "alike, or identical in form" (Gouldner, 1960, p. 172), here referring to the mutual CFE behavior.

Congruence and Incongruence

Congruence is defined as "the fit, match, agreement, or similarity between two conceptually distinct constructs" (Edwards, 1994, p. 51). By contrast, incongruence describes discrepancies between these constructs. To allow meaningful interpretation, the contrasted variables must be commensurate (i.e., originate from the same conceptual domain; Shanock *et al.*, 2010). Commensuration is given since CFE-S and CFE-O are both conceptually based on the CFE framework but are distinct due to the referent shift (an employee's own CFE behavior toward a coworker vs. the received CFE behavior of that coworker). Congruence and incongruence between CFE-S and CFE-O can be analyzed in various ways, with basic terms explained in Table I. While the first three terms are of a more general nature, the other terms become important when deriving and testing our rising ridge asymmetric congruence model.

¹ Note that Gouldner (1960) summarizes homeomorphic reciprocity as 'tat for tat'; not to be confused with the idiom 'tit for tat' which we use in the title to symbolize reciprocity.

Table IDefinition of key terms in congruence research

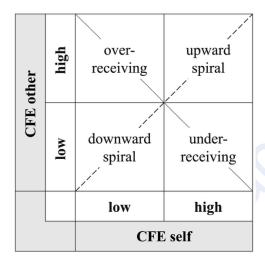
General terms	for variable comparisons (Shanock et al., 2010)
agreement	"the levels of the two predictor variables are essentially the same" (p. 544)
distance	"the extent to which the levels of the two predictor variables differ from each other" (p. 545)
direction	"which predictor is higher than the other" (p. 545)
Formal definit	tions of rising ridge asymmetric congruence hypotheses (Humberg et al., 2022)
congruence	"For two people who either both have $x > y$ or both have $x < y$ and who have the same mean predictor level $(x + y)/2$, the person whose x and y values are closer to one another has the higher (or lower) value of z " (p. 625)
linear level (rising ridge)	"and for two people with the same value on the discrepancy $x - y$, the person who has the higher mean predictor level $(x + y)/2$ has the higher (or lower) value of z " (p. 625)
asymmetry	"and for two people with the same mean predictor level $(x + y)/2$ and whose discrepancy values $x - y$ are equal in magnitude but opposite in sign, the person with $x < y$ has the higher (or lower) value of z " (p. 625)

Guided by literature on self-other agreement proposing four categories (Atwater and Yammarino, 1997), Figure 1 illustrates potential combinations of CFE-S and CFE-O in a simplified manner. Incongruence, reflecting a violation of the reciprocity norm through imbalanced exchange (Gouldner, 1960; Nahum-Shani *et al.*, 2011), may occur in two directions. First, the upper left quadrant reflects a situation of 'over-receiving', meaning that one perceives getting a more supportive CFE than one gives. By contrast, the quadrant bottom right demonstrates 'under-receiving' since an employee perceives that he/she receives a low-level CFE but is providing a high-level CFE. Congruence is given when both CFE dimensions are perceived at a similar level (simplified low-low or high-high). Drawing on the reciprocity norm, we expect a 'downward spiral' in the case of congruence at a low level but an 'upward spiral' in the case of high-level congruence (Lyons and Scott, 2012; see section 'hypotheses'). The diagonal from the bottom left to the top right is known as the 'line of congruence', whereas the 'line of incongruence' goes from the top left to the bottom right (Humberg *et al.*, 2019; Shanock

et al., 2010).

Figure 1

Conceptual foundation [Source: Authors own work]



/ line of congruence

\ line of incongruence

The question arises whether these combinations of CFE-S and CFE-O are beneficial or harmful in terms of affective trust in a coworker. While the matrix in Figure 1 is a simplified representation, it can be transferred to a three-dimensional response surface, accounting for the third dimension (affective trust) and the metric scaling of each construct. Thus, the matrix provides a starting point upon which we derive the hypotheses in the following section. In short, we expect a) higher levels of trust in case of 'congruence' (high-high or low-low) compared to 'incongruence' (high-low or low-high), b) higher levels of trust in the 'upward spiral' (high-high) compared to the 'downward spiral' (low-low), and c) a stronger decline in trust in a situation of 'under-receiving' (high-low) compared to 'over-receiving' (low-high).

Hypotheses

Congruence Effect

Feedback interactions represent a social exchange, and CFE perceptions arise through such exchange (Dahling *et al.*, 2017; Elicker *et al.*, 2019). In general, feedback seems to be associated with better relationship quality (Bakker *et al.*, 2005), and scholars highlight feedback as an antecedent of trust (Geister *et al.*, 2006; Jarvenpaa and Leidner, 1999). Considering the CFE, we expect positive effects on trust due to the associated positive intentions (Katz *et al.*, 2021), openness (Mayer *et al.*, 1995), time spent and demonstrating interest in someone (De Jong *et al.*, 2007), more intense communication, and clarifying coworkers' perceptions and attitudes.

According to Social Exchange Theory, a trusting relationship evolves based on reciprocal cues (Costa *et al.*, 2018; Cropanzano and Mitchell, 2005). Against this background, we expect higher levels of trust if the feedback environment is based on reciprocity (i.e., congruence). By providing a supportive CFE, employees show care and concern for their coworkers, which in turn is likely to increase the feedback recipient's affect-based trust in the provider (De Jong *et al.*, 2007). Notably, affective trust is accompanied by "the belief that these sentiments are reciprocated" (Costa *et al.*, 2018, p. 170). However, if the given CFE is not reciprocated, this could be interpreted as limited care and concern, resulting in a decrease in trust.

In other words, trust in a coworker "can decrease when the reciprocity rule is violated, though perceptions of imbalanced exchanges may be objective or subjective" (Costa *et al.*, 2018, p. 172). This could be explained by the effort it takes to provide a supportive CFE (e.g., time spent formulating feedback in a helpful and thoughtful manner and providing feedback frequently; Maslyn and Uhl-Bien, 2001). Against this background, Romeike *et al.* (2016a) emphasize: "If one individual perceives that she or he invests high effort while her or his

exchange partner invests considerably less, this leads to an exchange relationship of lower quality" (p. 294). Applied to our context, we would expect lower affective trust in such 'under-receiving' situations compared to congruence. After all, congruence is associated with balanced effort, while under-receivers do not receive the care and concern they provide.

Comparing balanced CFE behavior (i.e., congruence) with 'over-receiving', we again presume lower levels of trust in the latter case. Such a situation might occur, for example, if employees provide a rather low CFE-S because they do not feel that their coworker cares about them, and thus, there is no need to reciprocate and no willingness to support the coworker (Bakker et al., 2023; Knoll et al., 2006). Affective trust also encompasses whether one can freely share ideas, feelings, and hopes (McAllister, 1995). However, if employees do not experience open communication, they are presumably less willing to share feedback. This could result in a low CFE-S and, consequently, there is a greater chance of over-receiving. Besides, high CFE-O perceptions do not automatically lead to high affective trust. For instance, it is conceivable that receiving unfavorable feedback (which is a facet of CFE-O) is not associated with feelings of being cared for but is perceived as unpleasant and ruthless criticism. This presumably leads to lower levels of affective trust. Affective trust is also reflected by the degree to which both parties invested in their relationship (McAllister, 1995). If CFE-S is rather low, the effort is less pronounced. With decreasing CFE-S, there are fewer interactions with the coworker and, thus, fewer opportunities upon which trust can evolve (McAllister, 1995). After all, in their role as a feedback provider, employees also receive signals from the other party (e.g., their reactions to feedback), which could affect the trusting relationship.

Taken together, while the social exchange is balanced even in the downward spiral (i.e., congruence at a low CFE level; Carter and Mossholder, 2015), an unbalanced exchange is

expected to be associated with lower trust. This is in line with former research about social comparisons, which indicates that deviations in both directions are harmful to trust (Dunn *et al.*, 2012). In general, balanced exchange is regarded as more favorable (Wang and Gruenewald, 2019), as perceptual discrepancy can lead to undesirable outcomes such as negative feelings (Maslyn and Uhl-Bien, 2001; Song and Meier, 2022). Hence, our first hypothesis is:

Hypothesis 1: The more congruent CFE-S and CFE-O are, the higher the affective trust in the coworker.

Linear Level Effect (Rising Ridge)

As Humberg *et al.* (2022) emphasize, "In many psychological domains, not only is the degree of congruence expected to affect the outcome, but the mean level of the predictor variables is also expected to do so" (p. 637), also referred to as 'linear level effects' or 'rising ridge'. In other words, affective trust might differ between predictor combinations: considering the outlined downward and upward spirals, we assume trust to be lower when CFE-S and CFE-O are congruent at low levels (low-low) compared to congruence at higher CFE levels. After all, trust builds upon social exchange (Costa *et al.*, 2018). If the mutual provision of CFE is low, there are fewer social cues upon which one can draw. By contrast, if the CFE exchange is at a high level, this intensifies the transmission of positive signals. The received, presumably reciprocated support, demonstrates care and concern, meaning that a higher level of affective trust can be inferred (Dahling *et al.*, 2017; Knoll *et al.*, 2006).

The assumed effect can be further explained by Ferrin *et al.*'s (2008) 'trustworthiness-cooperation spiral', which illustrates the interplay of cooperation and trust perceptions between an actor and a partner. Transferred to the context of the present study, the 'actor' is an employee, and the 'partner' is a coworker with whom the employee exchanges feedback. Moreover, we

replace 'cooperation' with a supportive CFE, which can be interpreted as a kind of cooperative behavior. Following Ferrin *et al.* (2008), we expect that receiving a supportive CFE fosters affective trust, which in turn is likely to be reciprocated through supportive CFE behavior. Notably, "the development of mutual trust and cooperation involves an intricate dance that spirals over time and is fundamentally affected by partners' initial moves" (Ferrin *et al.*, 2008, p. 161). If no one demonstrates supportive CFE behavior, there is a risk of falling into a downward spiral or just staying at a low CFE level, limiting social exchange upon which trust can emerge. By contrast, a 'tit for tat' effect could swing in a positive direction if CFE is mutually reinforced (Axelrod, 1984; Cropanzano and Mitchell, 2005). Due to more frequent and intensified positive cues in case of higher CFE levels, we hypothesize:

Hypothesis 2: Affective trust in the coworker is higher when CFE-S and CFE-O are aligned at a high level of CFE rather than at a low level of CFE.

Asymmetry Effect

We already hypothesized that incongruence is associated with lower trust levels compared to cases with congruent predictors (H1). The question arises whether the trust decline is equal in both directions (under-receiving vs. over-receiving). Previous research considering social comparisons found that the effect on trust depends on the direction (Dunn *et al.*, 2012). If only the sign differs but the distance between CFE-S and CFE-O is identical, we expect lower levels of trust in the case of CFE-S > CFE-O (under-receiving). In a situation of under-receiving, the provided CFE-S is not reciprocated at the same level, meaning that employees spend more effort than they received, and the associated disappointment could undermine affective trust in the other party (Costa *et al.*, 2018; Romeike *et al.*, 2016a). The disappointment could be particularly high because one actively spent effort in the CFE-S provision, but the reciprocity

norm was violated (Gouldner, 1960). Consequently, "feelings of unfairness, exploitation, resentment, and burden" (Nahum-Shani *et al.*, 2011, p. 125) may arise.

By contrast, employees in a situation of over-receiving are rather passive and, thus, presumably less disappointed. Trust may suffer less because the violation of the reciprocity norm is in favor of the employee (Wang and Gruenewald, 2019). Nonetheless, one might feel "indebtedness, guilt, and shame" (Nahum-Shani *et al.*, 2011, p. 125). The degree to which both parties invest in their working relationship is limited, which might impair affective trust (McAllister, 1995). In light of the reciprocity norm (Gouldner, 1960), providing a worse CFE than received might lead to the belief that the other party would not respond caringly and constructively to forthcoming own shared problems (McAllister, 1995). Contrasting over- and under-receiving, Social Exchange Theory posits the latter to be worse as employees aim to minimize losses (Wang and Gruenewald, 2019). Taken together, we propose:

Hypothesis 3: Considering incongruence, affective trust in the coworker is lower in the case of under-receiving (CFE-S > CFE-O) compared to over-receiving (CFE-S < CFE-O).

Methods

Sample and Procedure

To empirically test the hypotheses, we collected online survey data in summer 2023. Ethical approval was not necessary for this non-interventional study. Participation (which was only possible after informed consent) required an employment and a feedback situation with a hierarchically equal coworker within the last six months. For two reasons, participants were asked to think about the coworker with whom they had the last feedback situation. First, temporal proximity facilitated remembering. Second, this instruction aimed to avoid biases due to self-selection (e.g., thinking about a coworker with whom one has an extremely good or bad

relationship).

Following Romeike *et al.* (2016a), we refrained from relative ratings to minimize response behavior biases. Instead, CFE-S and CFE-O were assessed separately, whereby CFE-S was measured first to reduce biases due to deliberately lower self-assessment (e.g., to 'save face'). Apart from that, separate measures were required for a differentiated congruence analysis by evaluating not only the distance of the constructs but also their level (e.g., both high or low).

The survey was completed by 338 German-speaking employees who were recruited using convenience sampling. Measuring the CFE twice considerably increased the number of items. To improve data quality, we included two attention checks ('Please tick the value 1 in this line'). Twenty participants failed at least one attention check and, thus, were excluded. Another four cases were deleted due to a self-exclusion ('No, I just wanted to look at the questionnaire, or I don't want my data to be used for the analysis'). Moreover, we excluded two multivariate outliers that were identified during the RSA outlier analysis (Schönbrodt and Humberg, 2023).

Thus, the final sample consists of 312 employees. Their age ranges from 20 to 64 years (mean = 30.35; SD = 9.68), and 68 % are female. Our cross-occupational sample originates from several industries and organizations of different sizes. All participants are employed, and about half work full-time. The last feedback situation with the hierarchically equal person took place 18 times 'today' (6 %), 122 times 'within the last week' (39 %), 88 times 'within the last month' (28 %), 59 times 'within the last quarter' (19 %), and 25 times 'within the last half year' (8 %). The majority of respective coworkers were the same age (45 %) or slightly older (35 %). In almost two-thirds of cases, the two subjects had the same gender (65 %). Their relationship tenure was of rather low duration, with a mean of 3.49 years (SD = 5.11 years).

Measures

Participants' agreement was captured using 5-point Likert scales ranging from '1 = not at all' to '5 = fully agree'. All items were translated into German, guided by the back-translation procedure (Brislin, 1970). Content validity is assumed because we adapted established scales (Kline, 2023).

To measure the feedback environment, we adapted the well-established scale by Steelman *et al.* (2004), which consists of 31 items that belong to seven facets. While we merely changed plural to singular for CFE-O ('this person' instead of 'my coworkers'), a referent shift was conducted for CFE-S, whereby we stayed as close as possible to the original wording. Sample items are: 'When I do a good job at work, this person praises my performance' (CFE-O) and 'When this person does a good job at work, I praise his/her performance' (CFE-S). Cronbach's alpha was .83 (CFE-O) and .77 (CFE-S), respectively.

Affective trust in the coworker was measured using the corresponding five items by McAllister (1995). A sample item is: 'If I shared my problems with this person, I know he/she would respond constructively and caringly'. Cronbach's alpha was .86.

To capture the participants' feedback orientation, which was collected for potential exploratory purposes and ad hoc analyses, we adapted the predominant scale developed by Linderbaum and Levy (2010). Their scale comprises four dimensions (utility, accountability, social awareness, and feedback self-efficacy), each measured by five items. To adapt it to coworker settings, we replaced the term 'supervisor' with 'coworkers' twice. A sample item is: 'Feedback contributes to my success at work'. Cronbach's alpha was .67.

Analytical Strategy

The analyses were carried out with R (version 4.3.1; R Core Team, 2023) and, in

particular, with the R package 'RSA' (version 0.10.6; Schönbrodt and Humberg, 2023). The measurement model had an acceptable fit with $\chi^2(211) = 455.35$, CFI = .90, RMSEA = .06, and SRMR = .07 (Hu and Bentler, 1999). Following established procedures in feedback environment studies, we built composite scores based on means (Anseel and Brutus, 2019). To test the hypothesized model, we run an RSA to investigate how "combinations of two predictor variables [CFE-S and CFE-O] relate to an outcome variable [affective trust]" (Shanock *et al.*, 2010, p. 543). Quadratic RSAs are not appropriate since their parabola cannot adequately account for the presumed asymmetry (Bäcklander and Richter, 2022; Humberg *et al.*, 2019). Thus, cubic terms were added, resulting in a third-order model. Humberg *et al.* (2022) provide a step-by-step guide for conducting and interpreting rising ridge asymmetric congruence models, and we used their R code as a blueprint (retrieved from osf.io/drv3a). The predictor variables were centered using the scale-midpoint to facilitate the interpretation (Edwards, 1994; Shanock *et al.*, 2010; Tsai *et al.*, 2022). Thus, the point (0, 0) now corresponds to a medium manifestation in CFE-S and CFE-O (i.e., exactly the midpoint of the scale).

In line with previous congruence and feedback studies, we controlled for similarities in terms of gender and age as well as the tenure of the dyadic relationship (Audenaert *et al.*, 2018; Matta *et al.*, 2015; Wang *et al.*, 2015; Wong *et al.*, 2017). We used a dummy variable for gender, with '1' indicating 'same gender' for the respondent and the respective coworker. Instead of capturing the actual age of the coworker, which may not even be known, it was set in relation to the own age: 'clearly younger', 'younger', 'about the same age', 'older', and 'clearly older' (coded with values ranging from -2 to +2). The relationship tenure was rounded to full years.

Findings

Descriptive Statistics

Table II contains the means, standard deviations, and bivariate correlations. All latent variables under consideration significantly correlate with each other. Regarding the control variables 'gender similarity' and 'relationship tenure', there are no significant correlations. With respect to 'age similarity', only one small negative correlation with CFE-S was found, indicating slightly lower CFE-S the older the coworker is compared to the study participant.

Table II

Descriptive statistics [Source: Authors own work]

	Mean	SD	1	2	3	4	5	6
1. CFE-S (x)	4.00	0.41	. 0					
2. CFE-O (<i>y</i>)	3.95	0.53	.65***					
3. affective trust (z)	3.63	0.90	.42***	.63***				
4. feedback orientation (w)	4.02	0.46	.34***	.34***	.16**			
5. gender similarity	0.65	0.48	.05	.04	.06	03		
6. age similarity	0.33	0.86	11*	.07	.07	.07	.08	
7. relationship tenure	3.49	5.11	.02	02	.05	02	.04	09

Note. n = 312; SD = standard deviation; CFE = coworker feedback environment; S = self; O = other; x and y = predictors; z = outcome; w = moderator (see section 'additional analyses'); * p < .05; ** p < .01; *** p < .001.

While a perfect balance between CFE-S and CFE-O is unlikely (Lyons and Scott, 2012), congruence is given if they are virtually similar. To assess discrepancies in these predictors, we followed the auxiliary strategy discussed by Humberg *et al.* (2022) by using half a grand standard deviation as a cutoff. Accordingly, 58 % of cases are regarded as roughly congruent, while discrepant predictor combinations were present for 24 % (CFE-S > CFE-O) and 18 % (CFE-S < CFE-O), meaning that both directions of incongruence are covered (Humberg *et al.*,

2019).

Response Surface Analysis

To account for the hypothesized effects and the associated parameter constraints, we specified the 'RRCA' model, which is embedded in the 'RSA' R package (Bäcklander and Richter, 2022). With regard to the methodological procedure, we followed the two-step approach suggested by Humberg *et al.* (2022). Thus, we first evaluated whether the full third-order model fits significantly better. Since the data supported the model constraints ($\Delta \chi^2 = 11.86$, p = .065), we continue with the second step. For the RRCA model, CFI was 0.97, and R² was 0.42. As shown in Table III, the coefficient $b_3 = -0.49$ was significantly negative (p < .001), supporting the suggested congruence effect (H1). Support was also found for the presumed linear level effect (H2), which is reflected by $u_1 = b_1 + b_2 = 1.05$ with p < .001. Moreover, with $b_6 = -0.25$ and p = .004, our findings indicate that there is indeed an asymmetry effect in the hypothesized direction (H3). Note that we refrain from interpreting other coefficients (e.g., of the full model), as Humberg *et al.* (2022) advise against this due to the complexity of cubic regressions.

Table III

Cubic RSA results [Source: Authors own work]

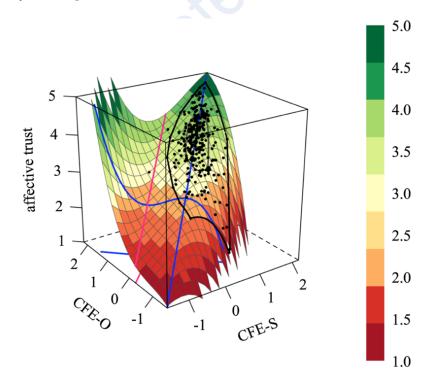
Model	\mathbf{b}_0	b ₁	\mathbf{b}_2	b ₃	\mathbf{b}_4	b ₅	b ₆	b ₇	b ₈	b 9
RRCA	2.62	0.52	0.52	-0.49	0.98	-0.49	-0.25	0.76	-0.76	0.25
p values	< .001	< .001	< .001	< .001	< .001	< .001	.004	.004	.004	.004
full	2.70	1.05	0.18	-1.97	1.68	-0.35	0.44	0.26	-0.62	0.23
p values	< .001	.295	.679	.034	.015	.061	.145	.634	.222	.277

Note. n = 312; RRCA model = broad asymmetric congruence model; full model = full third-order polynomial model; x = CFE-S; y = CFE-O; z = trust; The coefficient estimates refer to the full third-order polynomial model: $z = b_0 + b_1x + b_2y + b_3x^2 + b_4xy + b_5y^2 + b_6x^3 + b_7x^2y + b_8xy^2 + b_9y^3$.

The resulting response surface plot is shown in Figure 2, while Figure 1 corresponds to the floor area. The increase on the left-hand side is due to the cubic terms (Humberg *et al.*, 2022). This does not contradict our hypotheses, as conclusions are only drawn for the area with data points. While one data point lies behind the second extremum line, this does not have a significantly different outcome prediction than the same-level point on that line. Accordingly, our hypothesis assessment withstands this condition (Bäcklander and Richter, 2022; Humberg *et al.*, 2022). Considering the area of data points, Figure 2 also contains a bag plot with half of the observations in the inner bag (Rousseeuw *et al.*, 1999).

Figure 2

Response surface plot based on cubic polynomial regression [Source: Authors own work; created with the software R]



The local maximum is above the line of congruence, reflecting the supported H1. Thus, congruence in CFE perceptions (CFE-S and CFE-O) is associated with higher levels of affective trust. Notably, trust is higher in the case of CFE congruence at a higher level (i.e., 'both high' is better than 'both low'). This rising ridge effect, as hypothesized in H2, is demonstrated by the surface "ris[ing] toward the back corner of the coordinate cube" (Humberg *et al.*, 2022, p. 637). The cubic line in Figure 2 illustrates that for the area with observations, trust decreases more strongly in situations of under-receiving compared to over-receiving, which is in line with H3.

Additional Analyses

Overview

While this study focused on the investigation of the proposed rising ridge asymmetric congruence model, we are convinced that further analyses of our dataset contrasting CFE-S and CFE-O will provide valuable insights. Therefore, we conducted two additional analyses: considering feedback orientation as a moderator and exploring mean differences between the seven CFE facets, which provide starting points for future research.

Feedback Orientation as a Moderator

The inclusion of cubic terms revealed that situations of under-receiving deserve particular attention as the graph falls sharply in that direction. We hereafter split the sample by direction, i.e., whether one assesses one's own behavior as better or worse, and focus on employees whose CFE-S exceeded CFE-O. As an attempt to better understand the mechanisms in relation to trust, we consider the feedback orientation (FO) as a moderator. Scholars highlight FO as an important determinant, particularly its interaction with the feedback environment (Borden *et al.*, 2018; Gabriel *et al.*, 2014; Linderbaum and Levy, 2010). This multidimensional construct describes "an individual's overall receptivity to feedback" (London and Smither, 2002, p. 81). If one's FO

is low, less value is placed on feedback, and thus, the effect of a supportive feedback environment is expected to be less relevant. In other words, the feedback environment cannot unfold its potential (Borden *et al.*, 2018; Patel *et al.*, 2019). In contrast, people with a high FO tend to value feedback more and, thus, might place more value on a supportive CFE. Against this background, the negative consequences of a lack of reciprocity could depend on the FO.

While there exist approaches to combine quadratic RSA with moderation, they are not yet advanced for cubic RSA (Humberg *et al.*, 2022). Hence, recognizing that a two-dimensional perspective is associated with loss of information, we calculated a difference score (Δ *CFE* = $CFE_S - CFE_O$) to investigate the potential moderating effects of FO. Considering the theoretical scale length, Δ CFE could range from -4 to +4. The observed Δ CFE values ranged from -1.45 to +1.44 (first quartile = -0.17; third quartile = +0.23). Positive values indicate that CFE-S exceeds CFE-O, and we focus on these cases (n = 155).

We run a simple moderation with $X = \Delta CFE$, Y = affective trust, and W = FO using the PROCESS macro for R (Hayes, 2022). The F-statistic was F(3,151) = 26.51 with p < .001, and R^2 was 0.33. The test of highest-order unconditional interaction revealed an R^2 change of 0.09. Since the interaction term was significant (p < .001), our results indicate a moderating effect, which is illustrated in Figure 3. Generally, we found that the higher the ΔCFE (i.e., the distance between CFE-S and CFE-O), the lower the trust in a coworker. This effect was stronger in the case of a higher FO (+1 SD). Consequently, our results suggest that the negative effects of underreceiving are even worse when one's FO is higher (see Figure 3 and Table IV). This could be explained by the fact that employees with a higher FO place more value on feedback and, thus, are presumably more disappointed if the provided CFE is not reciprocated. The effect of the distance on trust was less pronounced in the case of a lower FO (-1 SD), and here, it was not

significant anymore (p = .057). This is reasonable because employees with a lower FO tend to attach less importance to feedback, meaning that their trust in a coworker is presumably less affected (or even not at all) by a rather worse feedback environment or a lack of reciprocation.

Figure 3

Interaction plot for CFE-S > CFE-O (n = 155) [Source: Authors own work; created with the software R]

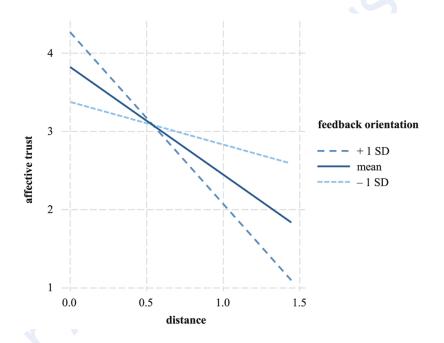


Table IV

Conditional effects of the predictor 'distance' at values of the moderator 'feedback orientation'

[Source: Authors own work]

FO	Effect	SE	t	p	95 % CI
-1 SD	-0.54	0.28	-1.92	.057	[-1.11; 0.02]
mean	-1.37	0.20	-6.93	<.001***	[-1.76; -0.98]
+1 SD	-2.19	0.25	-8.63	<.001***	[-2.70; -1.69]

Note. n = 155; FO = feedback orientation (mean centered); SE = standard error; t = t-statistic; p = p-value; CI = confidence interval; Number of bootstraps = 10,000; SD = standard deviation; We used the heteroskedasticity-consistent estimator HC4; * p < .05; *** p < .01; **** p < .001.

Differences at the Facet Level

So far, we have investigated overall scores for the multifaceted construct CFE. As differences in perceptions might vary between facets, we additionally compared CFE-S and CFE-O at the facet level to inform future research in this field. Given the nature of the data, we used two-tailed paired t-tests to test whether the means are significantly different. Power analysis revealed that 265 cases are required to identify small effects (≈ 0.20 ; Cohen, 1988) with an alpha error of 0.05 and a power of 0.90, which is fulfilled (n = 312). Table V contains descriptive statistics per facet.

Table VDescriptive statistics considering the CFE facets [Source: Authors own work]

	M	Min		Max		SD		Mean	
	S	0	S	O	S	0	S	0	S-O
overall score	2.80	1.57	5.00	5.00	0.41	0.53	4.00	3.95	0.05
source credibility	2.40	1.00	5.00	5.00	0.55	0.60	4.26	4.26	0.00
feedback quality	1.40	1.00	5.00	5.00	0.62	0.74	4.00	4.04	-0.04
feedback delivery	2.20	1.00	5.00	5.00	0.47	0.72	4.41	4.21	0.20
favorable feedback	1.00	1.00	5.00	5.00	0.70	0.82	3.99	3.77	0.22
unfavorable feedback	1.00	1.00	5.00	5.00	0.82	0.83	3.37	3.55	-0.18
source availability	1.50	1.25	5.00	5.00	0.65	0.78	4.03	3.90	0.13
promotes feedback-seeking	2.00	1.00	5.00	5.00	0.60	0.74	3.96	3.94	0.02

Note. n = 312; SD = standard deviation; $\Delta = mean_S - mean_O$; S = self; O = other.

The paired t-tests results are shown in Table VI. Considering the overall CFE score, CFE-S and CFE-O were significantly different, which also applies to four of the seven facets (feedback delivery, favorable feedback, unfavorable feedback, and source availability). For most facets, CFE-S was higher than CFE-O. However, for some facets, it was the other way around,

meaning that these differences cancel each other out when building an overall score based on equally weighted facet means. In line with most former CFE research, we analyzed the construct level, which is justified by the assumption that higher manifestations in each facet increase the supportiveness of the CFE (Whitaker *et al.*, 2007). Therefore, it is theoretically reasonable to formulate hypotheses for an overall score to compare the supportiveness of CFE-S with CFE-O. Nevertheless, given our paired t-tests results, it could be a fruitful avenue for future research to examine differences between the facets in more detail.

Table VI

Results of two-tailed paired t-tests [Source: Authors own work]

	t	p	95 % CI	Cohen's dz				
overall score	2.19	.029*	[0.01; 0.10]	0.12				
source credibility	0.16	.875	[-0.05; 0.06]	0.01				
feedback quality	-1.05	.295	[-0.13; 0.04]	-0.06				
feedback delivery	5.19	<.001***	[0.12; 0.27]	0.29				
favorable feedback	4.55	<.001***	[0.12; 0.31]	0.26				
unfavorable feedback	-3.38	< .001***	[-0.27; -0.07]	-0.19				
source availability	4.02	< .001***	[0.07; 0.19]	0.23				
promotes feedback-seeking	0.57	.569	[-0.05; 0.10]	0.03				

Note. n = 312; degrees of freedom = 311; t = t-statistic; p = p-value; CI = confidence interval; * <math>p < .05; ** p < .01; *** p < .001.

We found that CFE-S was rated significantly higher on average. With regard to the overall CFE score, the effect was only $d_z = 0.12$, but the effect size varies between facets. Notably, the facet 'source credibility' had a mean difference of 0.00, which is reasonable in terms of content. After all, if two coworkers collaborate, they tend to be similarly familiar with each other's work performance. In the case of 'feedback quality' and 'promotes feedback-seeking', we also found no significant difference. The remaining four facets were significantly

different between CFE-S and CFE-O, with p-values lower than .001. The largest effect was found for 'feedback delivery' with $d_z = 0.29$. This might be associated with the following observation: the frequency of 'favorable feedback' was rated significantly higher for CFE-S ($d_z = 0.26$), whereas its counterpart 'unfavorable feedback' was rated significantly lower ($d_z = -0.19$), a situation that might be perceived as 'I praise, but reap criticism'. Unfavorable feedback is presumably less pleasant, which could explain why 'feedback delivery' was rated better for CFE-S. In addition, the 'source availability' was perceived as worse for CFE-O ($d_z = 0.23$), limiting perceived reciprocity and opportunities to seek feedback due to restricted availability.

Discussion

Contributions to Research

The present study fosters the scientific discourse on feedback in various ways. Previous comparison studies in the field of feedback typically refer to a rating by another observer (e.g., supervisor or coworker evaluating the job performance) when writing 'other rating'. Exemplary analyses with regard to agreement refer to different ratings captured through 360-degree feedback (Atwater *et al.*, 1998; Yammarino and Atwater, 1997) and management effectiveness or performance assessed by managers and their subordinates (Johnson and Ferstl, 1999; Song and Meier, 2022). By contrast, the 'other rating' in the present study refers to the research subject's perception of his/her coworker's behavior. Besides, this study sheds light on the environment in which feedback processes take place instead of the feedback content itself. While RSAs are widespread for investigating multisource feedback messages (Shanock *et al.*, 2010), we found no study that has adapted this approach to the feedback environment.

Scholars highlight the need to consider intradyadic behavior to understand trust building (Baer *et al.*, 2018), and we accounted for received as well as provided CFE behavior. After all,

both receiving and giving feedback are part of feedback processes (Becker and Klimoski, 1989), but previous surveys on the feedback environment solely captured the receiver's perspective. Previous research suggests that unbalanced social exchange might be associated with reduced trust (Costa *et al.*, 2018), and our study underscores this through the investigation of congruence in CFE behavior. To do so, we introduced a modified version of the CFE.

Gabriel *et al.* (2014) already proposed examining convergence in feedback environment perceptions. However, to the best of our knowledge, the present study is the first referring the widely recognized Feedback Environment Scale by Steelman *et al.* (2004) to the perception of one's own CFE behavior and, based on that, contrasting perceptions of self and others. Previous comparison studies in relation to feedback usually conducted a rater shift, meaning that the same subject was rated by different raters (e.g., job performance rated by an employee, peers, and supervisors), but we performed a referent shift with regard to the feedback environment. By adding this perspective, we addressed calls to account for the dual role (receiver/provider) and to measure the feedback behavior of both parties within a dyad (Anseel *et al.*, 2018; Berg *et al.*, 2025). Doing so enabled us to investigate homeomorphic reciprocity, which is about exchanges alike or identical in form (Gouldner, 1960); here, with regard to the received and provided CFE.

The relationship between perceptual congruence and output variables is complex (Cogliser *et al.*, 2009). To adequately test the proposed rising ridge asymmetric congruence model, we used cubic polynomial regressions with RSA (Humberg *et al.*, 2022). Trust was higher in the case of balanced CFE behavior and further increased with higher CFE levels. Incongruence in both directions was associated with lower trust. Thereby, our results indicate that trust indeed decreases when CFE is not perceived as being reciprocated (Costa *et al.*, 2018). In situations of under-receiving, the trust decline was particularly sharp and even more

pronounced when the feedback orientation was higher. Our novel approach, supplemented by this initial evidence, can inform further empirical investigations as well as theory development. We discussed potential combinations of CFE-S and CFE-O because a better understanding of feedback processes through the lens of CFE can foster our understanding of coworker relationships. Its importance becomes salient in light of contemporary work environments, which are characterized by an increased need for timely feedback and by team-based work structures to cope with the associated challenges (Costa *et al.*, 2018; Eva *et al.*, 2019; Rivera *et al.*, 2021).

We followed up with two additional analyses to explore these relationships further. First, as we found support for a moderating effect of the feedback orientation, this construct deserves further consideration when analyzing the effects of the CFE. Second, while our main analysis was conducted at the construct level to fit the hypotheses, we additionally provide empirical evidence on perceptual differences per CFE facet, offering valuable insights for further research. Finally, most feedback environment research is limited to an overall score (Dahling *et al.*, 2017), but we provide effect sizes at the facet level to inform future studies.

Implications for Practice

The present study offers valuable insights for practitioners. Our results underpin the benefits of a supportive CFE, as trust was highest when both CFE-S and CFE-O were high.

Consequently, practitioners should encourage the provision of a supportive feedback environment. For instance, they could discuss interventions to promote the CFE using its seven facets and the respective items as a foundation (e.g., to ensure source credibility and availability).

Moreover, practitioners should strive for congruence, as we found lower levels of trust in the case of incongruence, regardless of the direction. This result is in line with Berg *et al.* (2025), who demonstrated that congruence between perceived provision and reception of support

matters. Organizations should be aware that perceptions can vary. Though self-ratings might be inflated or deflated (Atwater *et al.*, 1995), we deliberately captured subjective perceptions for both CFE-S and CFE-O. After all, Elicker *et al.* (2019) highlight that "Perceptions of the environment are key drivers of attitudes and can be more critical than the actual environment" (p. 180), and Costa *et al.* (2018) emphasize that trust declines might be caused by subjective perceptions of imbalanced exchange. To reduce the distance between CFE-S and CFE-O, employees could openly talk about their perceptions to obtain a more realistic view, so that trust suffers less. When doing so, they can compare their own intentions with what their counterparts perceived. Instead of just talking about it superficially, the survey instrument could be adapted. In this way, perceptions are marked with numbers so that differences are easier to detect, which creates a starting point for discussions. Depending on the CFE facet, we found varying degrees of deviation, and looking at the facet level presumably helps to identify specific interventions (e.g., ensure mutual availability).

While incongruence in both directions seems to be harmful, our results indicated that trust decreases faster in the 'under-receiving' situation (i.e., CFE-S exceeds CFE-O). Coworkers could benefit from sharing how they perceive CFE-S and CFE-O to challenge whether their perceptions might be inflated or deflated. To minimize the degree of under-receiving, it is important that coworkers reciprocate by demonstrating a supportive CFE-O. Another way to converge CFE-S and CFE-O is to reduce the former. However, as we found higher levels of trust for congruence at higher CFE levels, practitioners should aim for an overall high CFE.

Notably, the trust decline in 'under-receiving' situations was more pronounced when an employee's feedback orientation was high. Knowing each other's feedback orientation might be helpful to avoid unintentionally strong negative effects, since coworkers who are aware of the

receiver's receptivity to feedback can take this into account when providing feedback.

Limitations and Future Research Directions

Notwithstanding the sophisticated analysis of congruence effects and additional analyses, this study is not without limitations. Participation in our survey was limited to German-speaking employees. To assess the transferability of our findings, replication studies should be conducted in other cultures. After all, cultural aspects can affect feedback processes (Gabelica and Popov, 2020), perceptual discrepancies (Eckert *et al.*, 2010), and how much individuals value reciprocity (Cropanzano and Mitchell, 2005). Apart from that, to analyze the moderator 'feedback orientation', we built a CFE difference score. Future methodological advances will hopefully enable us to investigate this moderating effect with cubic RSAs (Humberg *et al.*, 2022), which would be more appropriate as we found a linear level effect, but the difference score does not account for the level (solely the distance).

Diving into CFE-S opens up many starting points for future research about a perspective that has been neglected so far. To provide initial empirical evidence, we collected data from individuals. Future studies could gather data from dyads to compare perceptions of both involved employees (e.g., which CFE levels one intends and how this is perceived by the counterpart), allowing a better understanding of the relationships under consideration (see Schönbrodt *et al.*, 2018, about dyadic RSA). When doing so, concerns about anonymity may arise, which could increase potential biases in response behavior, such as deliberately ticking CFE-S lower to 'save face', which could also have occurred in our study, although we ensured anonymity. Our ratio between under- and over-receivers was almost balanced, indicating that such a response behavior might be less of an issue. Nevertheless, these two groups should be investigated in more detail. The question arises when and why the incongruence goes in one direction or the other.

Qualitative research methods could help to discover the underlying factors (e.g., experience/seniority). Although we focused on hierarchically equal coworkers and controlled for age similarities, power disparities potentially limit reciprocity (Gouldner, 1960).

Our survey was potentially more appealing to employees who are generally interested in the topic, which might have influenced our results. For instance, these employees could be more aware of the benefits of feedback and, thus, provide a more supportive CFE (i.e., achieve higher CFE-S levels), decreasing the chance of over-receiving. Having said that, it is also conceivable that they demand a better CFE (i.e., higher CFE-O levels). More data points in the low-low range could be informative and should be analyzed to challenge whether our results also apply to a broader range of predictor combinations.

Low levels for both CFE-S and CFE-O could be due to a recent unpleasant exchange, an unstable working relationship, high autonomy, and low task interdependence. Future research should consider these contextual factors (Krasman, 2013). This seems to be particularly important with regard to feedback, as coworker feedback builds upon perceptions of work processes and outcomes of others. However, if the task interdependence is low, both may lack opportunities for observation, but also the need for mutual support and feedback. We asked the participants to think about the last feedback situation with a coworker. Therefore, there is probably a certain interdependence, albeit this is not ensured for each single case.

With regard to causality, if an employee trusts his/her coworker, that employee probably also scores high on CFE-S to reciprocate the perceived care and concern. This, in turn, reduces the likelihood of CFE-O being greater than CFE-S in the first place. While our cross-sectional study provides initial evidence on the rising ridge asymmetric congruence model, we recommend longitudinal designs to better understand the causal effects and change over time. Considering

the 'trustworthiness-cooperation spiral' (Ferrin *et al.*, 2008), a fruitful approach could be using latent change score models to examine whether changes in one construct (e.g., CFE-O or trust) cause changes in another (e.g., trust or CFE-S). In general, future research should analyze the reciprocity in terms of CFE in more detail (e.g., regarding the presumed upward and downward spirals), which is best captured with longitudinal data.

RSAs are useful not only when comparing CFE-S and CFE-O but also for other modifications of the CFE scale. The common assumption is that a supportive feedback environment increases desirable outputs. However, this view neglects one's desires or expectations regarding the feedback environment. Hence, another promising application for RSAs is to consider 'perceived CFE' in conjunction with 'desired CFE' or 'expected CFE' to better explain outcomes of the feedback environment (Qi *et al.*, 2023). In addition, future research could explore different congruence models (e.g., strict, rising ridge, asymmetric, level-dependent; Humberg *et al.*, 2022) for each CFE facet and try to understand how the differences between facets emerge to derive specific recommendations for practice.

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