



**Utrecht University**

## **‘Going the extra mile at work’**

---

The effect of developmental feedback and task interdependence on organizational citizenship behavior with affective organizational commitment as mediator

Nikola Hopf, 6910394

A thesis submitted in the partial fulfilment of the requirement for the degree of  
Master of Science in Social, Health and Organizational Psychology

at

Utrecht University

August 14<sup>th</sup>, 2020

First supervisor: Wieby Altink-van den Berg

Second supervisor: Ruth van Veelen

Word count (excluding list of references and appendices): 8802

Publicly accessible

## **ABSTRACT**

Today, organizational citizenship behavior (OCB) is a prerequisite for organizational performance and success. Yet, some of its antecedents, more specifically developmental feedback and task interdependence are insufficiently studied or research shows ambiguous results. Therefore, this study investigates these relationships and considers the potential mediating role of affective organizational commitment (AOC). Data for this cross-sectional study (N = 104) was obtained by means of an online questionnaire distributed via various social media platforms. Results of the mediation analyses indicate that developmental feedback can be seen as a weak antecedent of OCB ( $p = .10$ ). Moreover, findings show that the relationship between developmental feedback and OCB is not partially mediated by AOC. Furthermore, results display that task interdependence can be also considered as a weak antecedent of OCB ( $p = .07$ ). Yet, this effect vanishes in favor of a full-mediation based on AOC.

The study concludes with limitations, recommendations for future research and practical implications.

**Keywords** *Organizational citizenship behavior, affective organizational commitment, developmental feedback, task interdependence*

## INTRODUCTION

To ensure that organizations survive and flourish in the present environment characterized by continuous changes (Gong, Greenwood, Hoyte, Ramkissoon, & He, 2018), employees must be willing to do more than the minimal formal and determined technical facets of their profession (Rioux & Penner, 2001). These behaviors can be referred to as organizational citizenship behavior (OCB), (Jahangir, Akbar, & Haq, 2004), which is often equated with doing the ‘extra mile’ for the organization and its employees (Organ & Ryan, 1995). OCB is represented by acts of cooperation, helpfulness, and gestures of goodwill (Smith, Organ, & Near, 1983).

This study investigates developmental feedback and task interdependence as potential antecedents of OCB, and addresses the question whether employees’ affective organizational commitment (AOC) has an impact as a mediator. To clarify, developmental feedback’s focus lies on employees future improvement and development (Zhou, 2003), while task interdependence implies that employees depend on each other’s actions and support to complete their work tasks (Van der Vegt, Van de Vliert, & Oosterhof, 2003). The idea behind it is that both characteristics may motivate employees to go beyond their prescribed roles. AOC can be seen as an emotional and affective attachment to an organization (Allen & Meyer, 1990).

For decades scholars have tried to understand the roots and nature of OCB (Organ, 1988) and this research direction still remains (Barbuto, Brown, Wilhite, & Wheeler, 2001; Jahangir et al., 2004; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Podsakoff et al. (2000) classified OCB’s antecedents into four major categories: Individual (or employee), organizational and task characteristics as well as leadership behaviors. According to several studies, social work/task characteristics as antecedents of OCB have hardly been investigated (Chiu & Chen, 2005; Morgeson & Humphrey, 2006) and motivating further research (e.g., Chiu & Chen, 2005; Pearce & Gregersen, 1991). Following the call for research, this study investigates the effects of developmental feedback (Norris-Watts & Levy, 2004; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff et al., 2000) and task interdependence on OCB as previously indicated (Chiu & Chen, 2005; Pearce & Gregersen, 1991). Based on the social exchange theory (SET; Blau, 1964), both characteristics are considered predictors of employees’ willingness to exert OCBs.

Regarding developmental feedback, only few studies (e.g. Li, Harris, Boswell, & Xie, 2011) examined its effect on OCB as most feedback research focused on the effect of other feedback types, such as performance feedback, on work behaviors (Li et al., 2011). Additionally, studies concerning the effect of task interdependence on OCB show ambiguous

results (Chen, Tang, & Wang, 2009; Chiu, & Chen, 2005). Therefore, it is highly fundamental to establish underlying processes and effects of task interdependence as team-oriented structures are increasing in prevalence (Banks et al., 2014). As demonstrated by Pearce and Gregersen (1991), one reason for ambiguous results may be that task interdependence is only associated with OCB through a mediating variable. Consequently, affective organizational commitment will be considered as a potential mediator for several reasons. First, both developmental feedback and task interdependence are supposed to trigger social and supportive behaviors among employees, and are also assumed to enhance their affective commitment directed towards the organization. The process-oriented model of AOC, by Eby, Freeman, Rush and Lance (1999), provides a basis to explain the processes caused by feedback, which simulate employees' AOC in turn. Second, affectively committed employees are assumed to show OCBs. Several studies even pointed out that AOC is a predictor of OCB (e.g. Allen, Evans, & White, 2011) and thus provide support for the assumption above. This relationship will be elaborated by means of the SET in the theoretical framework. In short, this research aims at answering the following questions:

*How does developmental feedback and task interdependence relate to organizational citizenship behavior and how does affective organizational commitment affect these relationships as a mediator?*

Since OCB is vital for the organizational efficiency, performance (Podsakoff & MacKenzie, 1997) and competitive advantage at the labor market (Meyer & Parfyonova, 2010), this study first aims at closing the research gap of the insufficiently studied relationship between developmental feedback and OCB with AOC as a potential mediator. Secondly, this study investigates the relationship between task interdependence and OCB, and additionally follows the appeal of Chiu and Chen (2005) to investigate further potential mediators when examining this relationship. Consequently, this study explores the mediating role of AOC. Overall, this study is of practical relevance as its findings provide essential insights to managers, supervisors and Human Resource Management (HRM) on how to enhance employees' OCB effectively through job designs and AOC.

## **THEORETICAL FRAMEWORK**

Overall, the theoretical framework is based on the social exchange theory (SET) and process-oriented model, which uses the Job Characteristic Model (JCM) by Hackman and

Oldham (1976) as a guiding framework. Both, SET and the process-oriented model will be summarized in the following. Moreover, the variables of interest are introduced and their relationship is elaborated in the following. All hypotheses are derived throughout the theoretical part and the proposed relationships are visualized based on a conceptual model (cf. *Figure 1*).

### **Organizational citizenship behavior (OCB)**

Podsakoff et al. (2000) analyzed the existing literature on OCB and found that nearly 30 potentially different forms have previously been identified. Nevertheless, the two most popular conceptualizations are those examining OCB either by its components, e.g. altruism and civic virtue (Organ, 1988, 1997) or by the direction of behavior (Williams & Anderson, 1991). The latter seems to be more appropriate for this study as empirical research indicates that it is easier to distinguish behaviors based on their direction instead of their components (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Williams and Anderson (1991) distinguished OCB directed at the organization (OCB-O) from those directed at the individual (OCB-I) and their operationalizations even include Organ's OCB components. In this study, the scale used to measure OCB, consists of both, OCB-O and OCB-I. Nevertheless, OCB will be considered as a combined concept for two main reasons; first, it is essential to examine how strong developmental feedback is related to the overall construct of OCB as this relationship has hardly been studied so far. Second, the effect of task interdependence on OCB has been researched before, however with ambiguous results. Thus, this study aims to achieve some clarification concerning this relationship.

This study uses the definition by Organ (1988). Organ (1988) defined OCB as an "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization." (p.4).

### **Social exchange theory**

The SET conceptualizes work place behaviors as a series of transactions involving the exchange of resources between two or more parties (person or institution), (Blau, 1964; Cropanzano & Mitchell, 2017). These exchanges are interdependent, meaning that the behavior of one person depends on the actions of another; thus, it creates an obligation to reciprocate (Cropanzano & Mitchell, 2017). In accordance to Blau (1964), social exchanges are built on trust, that actions of goodwill will be reciprocated at one point. Moreover, social exchanges are long-term, built on trust and mutually beneficial compared to economic exchanges demanding quick repayment (e.g. financial benefits), (Blau, 1964).

In this instance, both developmental feedback and task interdependence can be seen as interdependent exchange relations between people, which are assumed to develop into 'structures of mutual dependence' (Cook, 2015, p.485). Therefore, employees are supposed to feel obligated to reciprocate (Cropanzano & Mitchell, 2017) their given support and gratitude through engaging in discretionary citizenship behaviors, e.g. taking time off to help colleagues with work-related issues or coming up with new ideas to improve organizational functioning. Additionally, affectively committed employees enjoy their organizational membership as they e.g. feel highly valued. Consequently, they are assumed to reciprocate with increased OCBs. Overall, the SET seems to provide a sufficient theoretical basis for the subsequent elaborations.

### **Developmental feedback and OCB**

So far, developmental feedback, as an important component of performance management in organizations (Fedor Davis, Maslyn, & Mathieson, 2001) has hardly been studied in relation to work outcomes, with only a few expectations (e.g., Li et al., 2011). Therefore, Li et al. (2011) appealed for further research as it is essential to consider this type of feedback in the "nomological network of feedback research" (p.2). Developmental feedback focuses on employees' future improvement and development ("What actions could you take to improve this?") and does not create pressure for a specific outcome (Zhou, 2003). This approach contrasts traditional performance feedback with a focus on the quality and/ or quantity of past outcomes and performance (Balcazar, Hopkins, & Suarez, 1985; Li et al., 2011). Concerning research results, Li et al. (2011) found that supervisor developmental feedback was significantly related to newcomers' helping behavior (form of extra-role behavior) directed at the workgroup. Apart from that, Norris-Watts and Levy (2004) demonstrated that AOC partially mediated the relationship between feedback environment and supervisor-reported OCB. However, their conceptualization of feedback environment does not fit that of developmental feedback; thus, only vague conclusions can be drawn supporting the present research direction. Moreover, the mediating role of AOC will be considered subsequently.

As indicated, developmental feedback refers to the extent to which employees are provided with valuable information for the purpose of future improvement, e.g. how well organizational expectations and work requirements were met (Joo & Park, 2010). This allows employees to learn and improve on their future work performance (Zhou, 2003). In this study, developmental feedback is restricted to feedback from supervisors as it is assumed that employees are more likely to seek feedback from them instead from colleagues (Ashford & Tsui, 1991). One of the reasons is that employees expect supervisors to have a high expertise concerning the performance domain (Zheng, Diaz, Jing, & Chiaburu, 2015).

When supervisors provide valuable developmental feedback to employees, they in turn perceive that they are highly valued, cared for and that their efforts are supported. This social exchange may “engender feelings of personal obligation [and] gratitude” (Blau, 1964, p.94) on employees’ side to repay supervisors’ favorable actions through showing OCBs. Following this argumentation, the subsequent hypothesis is derived:

Hypothesis 1 (H<sub>1</sub>): *‘Developmental feedback is positively related to organizational citizenship behavior.’*

### **Task interdependence and OCB**

Task interdependence has received increasing attention in the OCB literature in the past years (Bachrach, Powell, Bendoly, & Richey, 2006; Van der Vegt et al., 2003), however literature still shows inconsistent findings regarding the relationship between task interdependence and OCB. Chen et al. (2009) found that task interdependence has a statistically significant positive effect on supervisor-reported OCB. Moreover, Chiu and Chen (2005) investigated the relationship between task interdependence and OCB and at the same time explored the mediating role of job satisfaction. Their results indicate a statistically non-significant relationship. Moreover, this relationship was not mediated through job satisfaction. Therefore, Chiu and Chen (2005) expressed the need to further explore potential attitudinal mediating variables, e.g. organizational commitment, in future research to achieve clarification concerning this relationship. Beyond this, Pearce and Gregersen (1991) found that task interdependence was only associated with OCB through a mediating variable (i.e. felt responsibility). Therefore, they stated that task interdependence might only lead to OCB in presence of mediating variables. Thus, AOC will be taken into consideration as a potential mediator. Additionally, they emphasized that additional research is required before the effect of task interdependence can be fully established.

In this study, task interdependence is defined as “the extent to which an individual team member needs information, materials, and support from other team members to be able to carry out his or her job” (Van der Vegt et al., 2003, p.717). Thus, interdependence reflects the “connectedness” between jobs (Morgeson & Humphrey, 2006) and refers to the degree to which work tasks require cooperation, communication and coordination among team members, and group performance (Gully, Devine, & Whitney, 1995).

When employees work on highly interdependent tasks, they require each other’s support on a frequent basis to complete their tasks. Thus, both their sensitivity towards the needs of work colleagues (Krebs, 1970) and awareness towards their contribution, directed at their

immediate work group and organization overall, should increase (Bishop & Scott, 2000). Additionally, their sense of responsibility towards both, colleagues and organization, should enhance (Organ et al., 2006). Consequently, based on the SET, employees are assumed to be motivated to reciprocate, amongst others, their received support and gratitude through engaging in discretionary citizenship behaviors. This motivates the following hypothesis:

Hypothesis 2 (H<sub>2</sub>): *‘Task interdependence is positively related to organizational citizenship behavior.’*

### **Affective organizational commitment (AOC)**

Over time, commitment has been defined in distinct ways (Mowday, Porter, & Steers, 1982; Meyer & Herscovitch, 2001). One of the most researched models is the three-component model coined by Meyer and Allen (1991) consisting out of the following components: Affective, continuance and normative commitment. Meyer and Allen (1991) view commitment as a psychological state defining employees’ relationship with the organization and determining their decision to remain or terminate their organizational membership. Apart from this, the nature of the psychological states varies as affective commitment refers to a desire, continuance commitment to a need and normative commitment to an obligation to continue membership in an organization. This research focuses exclusively on the affective component as it is more likely that employees exert considerable effort for the sake of the organization in form of OCBs when they feel the desire to be part of the organization, than those who need to or feel obligated to belong to the organization (Meyer & Allen, 1991). Studies also indicated that affective commitment displayed the strongest positive correlation with desirable workplace behaviors, like OCBs (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Meyer, Becker, & Vandenberghe, 2004; Organ & Ryan, 1995). AOC can be defined as “an affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in, the organization” (Allen & Meyer, 1990, p.2).

### **Developmental feedback and AOC**

The relationship between developmental feedback and AOC will be examined by means of the process-oriented model of AOC by Eby et al. (1999), which uses the Job Characteristic Model (JCM) by Hackman and Oldham (1976) as a guiding framework. Eby et al. (1999) followed the appeal of many authors to develop a model that describes how job characteristics (e.g. feedback) stimulate processes through which employees become affectively committed towards their organization. Thus, the process-oriented model, amongst others, extends from the JCM by including AOC as a work attitude (Eby et al., 1999). Overall, the model by Eby et al.

(1999) is applied as it provides an explanatory basis to investigate the relationship between task interdependence and AOC.

According to this model, when employees receive clear-job related feedback from their job and/or e.g. from their supervisor, they receive information concerning the effectiveness of their work performance (Eby et al., 1999; Hackman & Oldham, 1976). Subsequently, employees may feel connected to and involved in the organization due to them realizing that their active contribution enables an efficient organizational functioning (Eby et al., 1999). As a consequence, employees' intrinsic motivation is assumed to increase alongside their AOC (Eby et al., 1999). Irrespective from intrinsic motivation, feedback also enhances AOC directly. According to Eby et al. (1999), this is because feedback strengthens employees' perceptions that they are valuable contributors towards organizational goals.

Yet, the conceptualization of feedback used in their models does not comply entirely with the criteria of developmental feedback as its focus lies on the efficiency of employees' past task performance (Hackman & Oldham, 1976, 1980) instead of their future improvement and development. Assuming that developmental feedback is going to be explored in more depth in future research and applied more often in organizations due to its forward-looking focus, the study explores specifically this type of feedback.

In essence, when employees receive developmental feedback from their supervisors, it signals that the organization supports them and cares about their professional future development and improvement (Li et al., 2011). Moreover, employees realize that their contribution is essential for the overall organizational functioning (Eby et al., 1999). Consequently, their desire to remain in the organization, being affective organizational commitment, increases. This leads to the following hypothesis:

Hypothesis 3 (H<sub>3</sub>): *'Developmental feedback is positively related to affective organizational commitment'*

### **Task interdependence and AOC**

To note, no suitable theory was found allowing for an in-depth elaboration of the relationship between task interdependence and AOC. Thus, it will be examined without applying a specific theory.

When employees work interdependently on a task, they realize the relevance of their own contribution to their workgroup and organization overall (Bishop & Scott, 2000). This heightened awareness should increase their ego involvement and thereby enhance the development of positive affect directed at the organization (Bishop & Scott, 2000; Morris &

Steers, 1980). Positive affect refers to the extent to which a person subjectively experiences positive moods, like enthusiasm and joy (Cropanzano, James, & Konovsky, 1993), which is, in this instance, directed towards a company. The ‘construct’ of positive affect displays equivalent elements with the definition of AOC by Allen and Meyer (1990), as highly committed employees show enjoyment through their organizational membership. Several empirical investigations support this relationship (Bishop & Scott, 2000; Morris & Steers, 1980). Consequently, the following hypothesis can be derived:

Hypothesis 4 (H4): *‘Task interdependence is positively related to affective organizational commitment’.*

### **AOC and OCB**

In the literature, AOC is considered a key antecedent of OCB (Allen & Rush, 1998; Meyer et al., 2002), which can be largely explained by the SET (Blau, 1964). Highly committed employees usually feel involved in and identify with their organization. Additionally, they are assumed to feel highly valued and respected (Ng & Feldman, 2010) by the organization. Subsequently, employees are expected, based on the SET, to reciprocate by exerting considerable effort on behalf of the organization and colleagues in order to maintain an overall efficient functioning. Following these arguments, the fifth hypothesis can be deduced:

Hypothesis 5 (H5): *‘Affective organizational commitment is positively related to organizational citizenship behavior’.*

### **Mediation hypotheses**

The study by Norris-Watts and Levy (2004), mentioned above, showed that AOC partially mediated the relationship between feedback environment and OCB. Therefore, this study assumes AOC to partially mediate the relationship between developmental feedback and OCB. This will be explored by means of a mediation analysis. The subsequent hypothesis is set up as follows:

Hypothesis 6 (H6): *‘Affective organizational commitment partially mediates the relationship between developmental feedback and organizational citizenship behavior.’*

Additionally, this study follows the call of Chiu and Chen (2005) to investigate the mediating role of AOC concerning the relationship between task interdependence and OCB as

they did not find a statistically significant effect of task interdependence on OCB overall. Contrastingly, Chen et al. (2009) found a statistically significant positive effect of task interdependence on supervisor-reported OCB. Moreover, Pearce and Gregersen (1991) found out that task interdependence was only associated with OCB through a mediating variable. Due to ambiguous results concerning the relationship between task interdependence and OCB, this study explores a potential mediation in considering AOC to partially mediate these two variables. The hypothesis is summarized as follows:

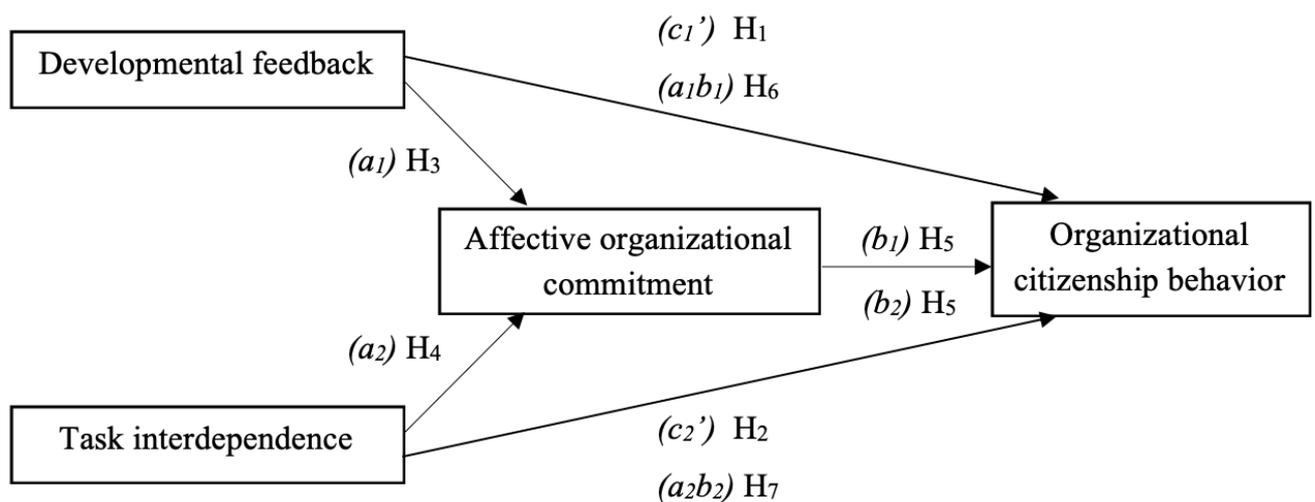
Hypothesis 7 (H7): *'Affective organizational commitment partially mediates the relationship between task interdependence and organizational citizenship behavior.'*

### Conceptual model

The subsequent model summarizes the proposed hypothesis and combines two distinct conceptual mediation models as their mediator (AOC) and dependent variable (OCB) is identical. The paths/ relationships of each model are described below the proposed conceptual mediation model and will be tested separately by means of two mediation analyses.

Figure 1

*Proposed conceptual mediation model.*



*Note.* 1<sup>st</sup> model: Developmental feedback – AOC (path  $a_1$ ), developmental feedback – OCB (direct effect, path  $c_1'$ ), AOC – OCB (path  $b_1$ ), effect of developmental feedback on OCB through AOC (indirect effect, path  $a_1b_1$ );

2<sup>nd</sup> model: Task interdependence – AOC (*path a2*), task interdependence – OCB (direct effect, *path c2*), AOC – OCB (*path b2*), effect of task interdependence on OCB through AOC (indirect effect, *path a2b2*).

## METHOD

This section provides information on the study design, sample, measures and statistical analyses.

### Study design

This study pursues a quantitative research approach, using questionnaires to conduct a cross-sectional survey study. Using a survey study is efficient as the collected data is numerical (e.g. in contrast to interviews) enabling analyses of the proposed relationships illustrated in *Figure 1*. Cross-sectional implies that data was collected from employees at a particular point in time. Yet, there remains a risk for common method bias, which might have occurred (Jakobsen & Jensen, 2015) e.g. through only applying a survey study, with similar scale formats and values, where the latter might have produced artifactual covariation (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Additionally, survey respondents gave information on the independent variables as well as dependent variable, which might have biased the result through respondents' tendency of generally overestimating variables due to e.g. assessing oneself in a 'too positive manner' (Jakobsen & Jensen, 2015, p.4). An analysis will be conducted in the 'Limitations and recommendations for future research' section to account for this phenomenon and will be discussed accordingly.

The survey was set up using the 'Qualtrics' software (Qualtrics, LLC, n.d.). The survey link was disseminated via Slack and WhatsApp to employees as these social media platforms with already established group chats allowed sending out standardized messages (incl. survey link) to multiple employees at once. On behalf of the Faculty Ethics Review Committee, various steps needed to be taken in order to comply with the General Data Protection Regulation (GDPR). Thus, before the questionnaire was displayed, participants were informed about the research goal, survey set-up and data confidentiality. Subsequently, they were asked to give informed consent that they voluntarily agree to participate in the present research project and that they can withdraw at any given moment. In addition, they were asked to fill in some demographic data (incl. age, gender, educational level, tenure) in order to classify the research sample. The subsequent questionnaire consisted of 22 questions concerning the main variables and can be found in *Appendix 2*.

## Sample

Prior to research, the ideal sample size was calculated using the tool called G\*Power (version 3.1.9.4). Based on a medium effect size ( $f^2$ ) of 0.15, an alpha error probability of .05, a power of .95 and 3 tested predictors, the ‘ideal’ sample size should consist of 119 participants. The initial goal was to collect all data during an internship in a multinational tech company. However, external circumstances (COVID-19) aggravated the data collection as all employees had to work from home; the research project could thus be only introduced virtually yielding an low participation rate. Overall, approximately 80 percent of the survey responses stem from employees of this tech company, while the remaining responses arose from employees of other sectors. In the data analysis, no distinctions were made concerning the sample composition. The final sample size only included 104 participants due to aggravated external circumstances, as mentioned above. *Table 1* summarizes the descriptive statistics of the demographic data.

Table 1

*Descriptive statistics (N = 104).*

Category	Subcategories/ options	Participants (%)
Age	21-25 years	30.8
	26-30 years	40.4
	31-35 years	17.3
	36-40 years	3.8
	40+ years	7.7
Gender	Female	51.9
	Male	48.1
Educational level	High school graduate	8.7
	Bachelor’s degree	43.3
	Diploma/Magister/Master	41.3
	PhD	2.9
	Unknown degree & Other	3.8
Tenure	Less than 3 months	17.3
	3-6 months	17.3
	7-12 months	20.2
	13-24 months	27.9
	25-36 months	6.7
	3+ years	10.6

## Measures

All variables were operationalized using scales derived from the extant literature with proven reliability and validity. The chosen scales were appropriate for all respondents as they addressed topics, to which employees were able to relate. Overall, all answers were obtained using a 7-point Likert scale ranging from ‘*Strongly disagree*’ (1) to ‘*Strongly agree*’ (7). To note, item 2 of the developmental feedback scale and item 3 of the task interdependence scale were negatively worded (*reversed*). Thus, both items were recoded accordingly before the data analyses. All scales can be found in *Appendix 1*.

A Principal Component Analysis (PCA) was conducted, using oblique rotation (rotation method: Oblimin) for all scales at once. Its purpose was to test whether the items, belonging to a specific scale, load on a presumed, distinct component. Oblique rotation was chosen as it allows for correlation between factors and due to the scales being assumed to be interrelated to a certain degree. Concerning the procedure, the items of all four scales (in total 22 items) were put all at once in the ‘Variables’ section in SPSS. The Kaiser-Meyer-Olkin measure (KMO) verified the sampling adequacy for the analysis. The value of KMO = .66 is above the minimum criterion of 0.5 and thus falls into the range of ‘mediocre’. Bartlett’s test of sphericity is statistically significant ( $p < .001$ ). Subsequently, an initial analysis was run to obtain eigenvalues for each component in the data. According to the SPSS-output, 7 components were identified, which had eigenvalues greater than 1, however when examining the ‘Scree Plot’ one could also assume only 4 factors. The ‘Pattern Matrix’ shows that all items classifying AOC loaded nearly perfectly on one distinct component, which also accounts for task interdependence. Concerning developmental feedback, the ‘Pattern Matrix’ displays that all items classifying this variable load perfectly on one distinct component. Apart from that, the items of OCB are spreading across multiple components of which even one item loaded highly on the component being distinct for AOC (cf. ‘Pattern Matrix’ in *Appendix 3*). Consequently, the PCA was run again with a ‘fixed number of factors’ of 4. Concerning the variance explained by the component solutions of 4, component 1 explains 20.18 % of the total variance, whereas component 2 explains 12.45 %, component 3 explains 9.57 % and component 4 explains 8.63 %. Based on its ‘Pattern Matrix’, and previous arguments, it can be concluded that the component solution of 4 is more appropriate as nearly all items, belonging to a specific scale, load perfectly on one distinct component. Thus, the scales’ suitability for the actual analyses is supported (cf. ‘Pattern Matrix’ in *Appendix 4*).

Afterwards, a reliability analysis was conducted for each scale. Nearly all scales showed values  $> .7$ , which are considered acceptable values for Cronbach’s  $\alpha$ , except for OCB. The

corrected inter-item correlation for nearly all items, except OCB, was higher than .3 indicating that each item correlated very well with the scale overall. Considering OCB, even if items would be deleted, Cronbach's  $\alpha$  would decrease; thus, all items were kept. The Cronbach's  $\alpha$  of all scales can be found in the subsequent scale description.

**Occupational citizenship behavior.** An eight-item scale (Van der Ende, 2013), derived from an sixteen-item scale by Lee and Allen (2002), is applied. Four items tap into behaviors benefitting individuals (OCB-I), while the other four focus on behaviors are directed at the organization (OCB-O). The measures include items such as „Willingly give your time to help others who have work-related problems.“ (OCB-I) and “Offer ideas to improve the functioning of the organization.” (OCB-O). Van der Ende (2013) reported a Cronbach's  $\alpha$  of .90 for the shortened eight-item scale applied in this research while this study found a Cronbach's  $\alpha$  of .66. No scientific articles were found providing evidence for the scale's validity.

**Affective organizational commitment.** A six-item scale by Meyer, Allen, & Smith (1993) is used to measure AOC, which derived from the original eight-item scale by Allen and Meyer (1990). The measure consists of items like “I would be very happy to spend the rest of my career with this organization.” The original scale's reliability was .87, and its discriminant validity is verified by Allen and Meyer (1990). This study found a Cronbach's  $\alpha$  of .75.

**Developmental feedback.** A three-item scale composed by Zhou (2003) was applied to determine the degree to which employees receive supervisor developmental feedback. The measure included items like “My supervisor provides me with useful information on how to improve my job performance.” Zhou (2003) reported a Cronbach's  $\alpha$  of .86 and Li et al. (2011) approved the scale's discriminant validity. This study investigated a Cronbach's  $\alpha$  of .75.

**Task interdependence.** A 5-item scale by Van der Vegt, Emans and Van de Vliert (2001), which is grounded on earlier measures (Kiggundu, 1981; Pearce & Gregersen, 1991), was used to operationalize and measure task interdependence. The scale included items such as "I depend on my colleagues for the completion of my work." Van der Vegt et al. (2001) used a 5-point Likert scale, however was adapted to the scale format, being a 7-point Likert scale, which was applied to investigate the other three variables of interest. Subsequently, respondents do not need to switch between answer formats. Van der Vegt et al. (2001) reported a Cronbach's  $\alpha$  of .75 and approved the scale's discriminant validity. This study examined a Cronbach's  $\alpha$  of .76.

### **Statistical analyses**

All data was analyzed using IBM SPSS Statistics 25. After executing the previously mentioned preliminary analyses, a few assumptions were considered before the conduction of several mediation analyses. The assumptions of ‘continuous measurement’ and ‘independence’

are existent in this study. Additionally, all four variables were checked for 'normality of residuals', 'homoscedasticity', 'multicollinearity' and 'linearity'. Regarding 'normality', the Shapiro-Wilk Test displayed that the significant values were all below 0.05, thus it can be assumed that the data deviates from a normal distribution. However, before removing outliers, it was checked for multivariate outliers through considering the Mahalanobis distance. Results indicated that there are no multivariate outliers, thus all responses were kept.

Regarding the normal Predicted Probability (P-P) Plot, the data is normally distributed as all points were resembling in a straight line along the diagonal line; thus, 'normality' gets approved once again. Considering the scatterplot of the residuals, the points are equally distributed above and below zero on the X-axis, and to the left and right of zero on the Y-axis; thus, it can be assumed that the data follows a homoscedastic pattern. Moreover, all scales showed no multicollinearity as the VIF values were not bigger than 10, indicating that this assumption is met. Overall, the residuals are normally distributed and homoscedastic, therefore linearity is not harmed.

## RESULTS

### Descriptive Statistics and Correlations

Before reporting on the tested conceptual model, the means of the variables of interest with corresponding standard deviations, and their correlations will be primarily discussed as they are included in further statistical analyses. All results are displayed in *Table 2*. The variables of interest were all obtained by means of a Likert scale ranging from 'Strongly disagree' (1) to 'Strongly agree' (7), while the first four demographical data were displayed categorically in the questionnaire.

Concerning the means of the variables of interest, scores higher than 5.0 were shown, which can be interpreted as generally high, with varying SD ranging from .47 to 1.03. Particularly, OCB displayed the highest mean ( $M = 5.89$ ) and the lowest standard deviation ( $SD = .47$ ), whereas developmental feedback ( $M = 5.55$ ) showed the highest standard deviation ( $SD = 1.03$ ).

Regarding the correlations, the variables of interest are weakly correlated ( $r \leq .23$ ), except for AOC and OCB with a moderate correlation. Additionally, the variables of interest did show weak positive and negative correlations with the four demographical variables. Additionally, the four demographical variables displayed weak positive correlations with each other ( $r \leq .25$ ).

The highest correlation coefficient was found for the relationship between AOC and OCB ( $r = .46$ ) indicating that employees who are affectively committed towards their

organization show more OCBs. Moreover, developmental feedback (SDF) showed a positive, however weak, relationship with OCB ( $r = .16$ ). This indicates that the more employees receive developmental feedback, the more they engage in OCBs. Additionally, a weak positive correlation was detected between task interdependence and OCB ( $r = .18$ ). This correlation indicates that the more employees work interdependently on a task, the more they engage in OCBs. Furthermore, a weak positive correlation between task interdependence and AOC was found ( $r = .23$ ) indicating that the more employees work interdependently on tasks, the more they feel committed. Overall, all correlations point into the expected research direction.

Table 2

*Descriptive statistics and correlations (N = 104).*

	M	SD	1	2	3	4	5	6	7	8
1. Age <sup>a</sup>	3.17	1.14	1							
2. Gender <sup>b</sup>	1.48	.50	.14	1						
3. Education <sup>c</sup>	2.52	.91	.23**	.19*	1					
4. Tenure <sup>d</sup>	3.21	1.53	.25**	.13	.03	1				
5. OCB	5.89	.47	.09	-.06	.02	-.03	1			
6. AOC	5.30	.76	.06	.05	.03	.11	.46**	1		
7. SDF	5.55	1.03	-.002	-.17*	.05	-.20*	.16*	.11	1	
8. TI	5.19	1.0	.13	.05	.12	-.02	.18*	.23**	-.02	1

*Note.* M = Mean, SD = Standard Deviation, SDF = Supervisor Developmental Feedback, TI = Task Interdependence; <sup>a</sup> Age: 1 = Less than 21 years, 2 = 21-25 years, 3 = 26-30 years, 4 = 31-35 years, 5 = 36-40 years, 6 = 40+ years ; <sup>b</sup> Gender: 1 = 'Female', 2 = 'Male'; <sup>c</sup> Education: 1 = High school graduate, 2 = Bachelor's degree, 3 = Diploma/ Magister/Master, 4 = PhD, 5 = Unknown degree & Other; <sup>d</sup> Tenure: 1 = Less than 3 months, 2 = 3-6 months, 3 = 7-12 months, 4 = 13-24 months, 5 = 25-36 months, 6 = 3+ years

\* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed)

### Hypothesis Testing

Two mediation analysis were executed separately to investigate the mediating role of AOC in regards to the relationship between developmental feedback and OCB, and between task interdependence and OCB. PROCESS macro version 3.0, applying bootstrapping (Hayes, 2017), was used to conduct both mediation analyses. By default PROCESS utilizes 5000 bootstrap samples in order to estimate 95 % bias corrected confidence intervals (2-sided) for

the indirect effects. In the following, the results are displayed according to the applied order of the theoretical framework, and are illustrated in *Figure 2* and *Table 3*.

**Developmental feedback, task interdependence and OCB.** First, hypothesis 1 (path  $c1'$ ), developmental feedback does not significantly predict OCB with AOC in the model,  $b = .05$ , 95% CI [-.03, .13],  $t = 1.28$ ,  $p = .20$ ; therefore, hypothesis 1 is not confirmed.

Second, considering hypothesis 2 (path  $c2'$ ), task interdependence does not significantly predict OCB with AOC in the model,  $b = .04$ , 95% CI [-.05, .12],  $t = .83$ ,  $p = .41$ ; thus, hypothesis 2 is not confirmed.

**Developmental feedback, task interdependence and AOC.** Regarding hypothesis 3 (path  $a1$ ), developmental feedback does not significantly predict AOC,  $b = .08$ , 95% CI [-.06, .23],  $t = 1.16$ ,  $p = .25$ ; thus, hypothesis 3 is not confirmed.

Concerning hypothesis 4 (path  $a2$ ), task interdependence significantly predicts AOC,  $b = .18$ , 95% CI [.03, .32],  $t = 2.39$ ,  $p = .02$ , which supports hypothesis 4.

**AOC and OCB.** In regards to hypothesis 5 (path  $b1$ ), AOC significantly predicts OCB,  $b = .27$ , 95% CI [.16, .38],  $t = 4.95$ ,  $p < .001$ , which supports hypothesis 5.

Considering hypothesis 5 (path  $b2$ ), AOC significantly predicts OCB,  $b = .28$ , 95% CI [.17, .38],  $t = 5.13$ ,  $p < .001$ ; thus, hypothesis 4 is supported.

**Indirect effects.** Regarding hypothesis 6 (path  $a1b1$ ), AOC does not partially mediate the relationship between developmental feedback and OCB,  $b = .02$ , 95% BCa CI [-.01, .06]; thus, hypothesis 6 is not confirmed.

Taking hypothesis 7 (path  $a2b2$ ) into account, AOC fully mediates the relationship between task interdependence and OCB,  $b = .05$ , 95% BCa CI [.01, .10]. Therefore, hypothesis 7 is not confirmed.

Figure 2

Results of the two tested mediation models ( $N = 104$ ).

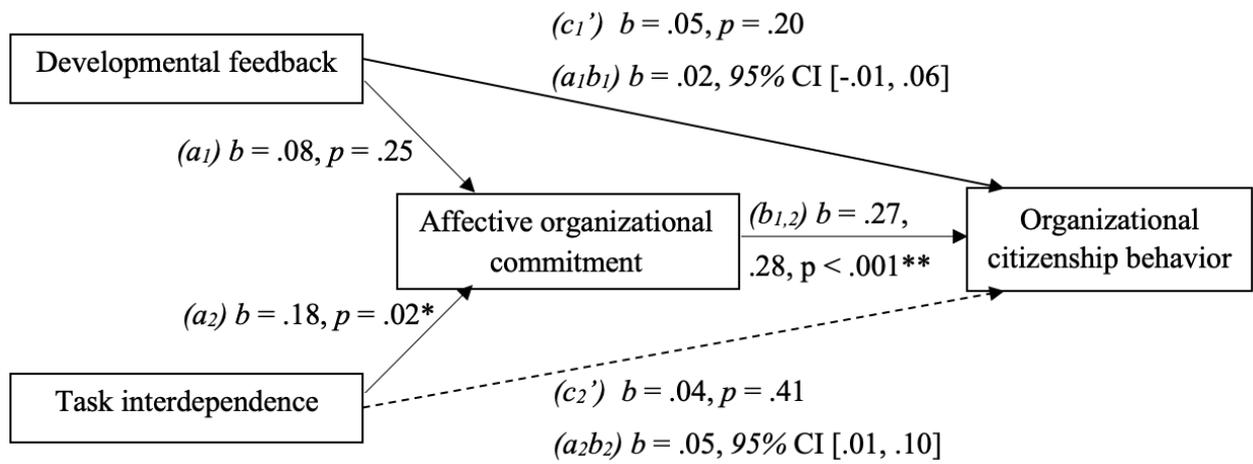


Table 3

Results of the mediation analyses of the relationship between developmental feedback and OCB with AOC as a mediator (Mediation analysis 1), and between task interdependence and OCB with AOC as a mediator (Mediation analysis 2), ( $N = 104$ ).

Mediations analysis 1							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i> <sub>1</sub>	SDF	AOC	.08	.07	.25	[-.06, .23]	.01
<i>c</i> <sub>1</sub>	SDF	OCB	.07	.04	.10	[-.01, .16]	.03
<i>c</i> <sub>1</sub> '	SDF	OCB	.05	.04	.20	[-.03, .13]	.23
<i>b</i> <sub>1</sub>	AOC		.28	.05	< .001**	[.17, .38]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1a1b1</i>			.02	.02	[-.01, .06]		

Mediations analysis 2							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i> <sub>2</sub>	TI	AOC	.18	.07	.02*	[.03, .32]	.05
<i>c</i> <sub>2</sub>	TI	OCB	.08	.05	.07	[-.01, .17]	.03
<i>c</i> <sub>2</sub> '	TI	OCB	.04	.04	.41	[-.05, .12]	.22
<i>b</i> <sub>2</sub>	AOC		.27	.06	< .001**	[.16, .38]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1a2b2</i>			.05	.02	[.01, .10]		

Note. SDF = Supervisor Developmental Feedback, TI = Task Interdependence, *b* = Coefficient, *SE* = Standard Error, CI = Confidence Interval, *R*<sub>2</sub> = R square, BCI = Bootstrapped Confidence Interval, BSE = Bootstrapped Standard Error

\*  $p < .05$ , \*\* $p < .001$

<sup>1</sup> The paths *a1b1* and *a2b2* in the table show the estimated indirect effects (*b*) and the according bootstrapped standard errors and confidence intervals (2-sided).

### Post-hoc Analyses

Four post-hoc mediation analyses were executed differentiating between OCB-O and OCB-I. Its overall purpose is to reveal information from the data set that might be relevant for future research. From a conceptual point of view, this differentiation can be meaningful as OCB-O places a focus on impersonal citizenship, whereas OCB-I puts emphasis on interpersonal aspects of OCB (Barling & Cooper, 2008). Research also showed that each

subdimension, OCB-O and OCB-I, had distinct antecedents (Barling & Cooper, 2008). Reliability analyses revealed a Cronbach's  $\alpha$  of .62 for the OCB-O scale and a Cronbach's  $\alpha$  of .57 for the OCB-I scale. Concerning the PCA reduced to 2 factors, component 1 explained 30.34 % of the total variance, while component 2 explained 17.44 %. The results of the post-hoc mediation analyses will be partially discussed in the following and are displayed in a table, see *Appendix 5*.

Additionally, two hierarchical multiple regressions were conducted to understand which antecedents can be considered the best predictors of OCB. The results will be briefly addressed in the discussion and can be found in *Appendix 6*.

## DISCUSSION

This study followed researchers' appeal to investigate the effect of work/task characteristics on OCB. Additionally, this research aimed to examine to what extent AOC would mediate these relationships. Overall, the present research showed that the hypothesized model was only partially supported.

In the following, the findings of the mediation analyses will be briefly summarized and subsequently interpreted based on the applied order of the theoretical framework. Furthermore, limitations and recommendations for future research are discussed. Additionally, practical implications are outlined and a conclusion is drawn.

### Summary of findings

The findings resulted from the testing of the relationships in the two mediation models are summarized in the following. Hypothesis 1 predicted that developmental feedback would be positively related to OCB and hypothesis 2 expected a positive association between task interdependence and OCB. Study results revealed statistically non-significant relationships in both cases. Thus, both hypotheses are not confirmed. In hypothesis 3, it was expected that developmental feedback is positively related to AOC. Study results however did not show a statistically significant relationship. Therefore, hypothesis 3 is not confirmed. Hypothesis 4 predicted a positive association between task interdependence and AOC. In line with this prediction, a statistically significant relationship was found between these two variables. Thus, hypothesis 4 is supported. In hypothesis 5, it was expected that AOC would have a positive association with OCB. As predicted, results revealed a statistically significant relationship between AOC and OCB, which supports hypothesis 5. Hypothesis 6 predicted that AOC partially mediates the relationship between developmental feedback and OCB. No support was found for the mediated effect of AOC, thus hypothesis 6 is not confirmed. Finally, hypothesis

7 expected that AOC partially mediates the relationship between task interdependence and OCB. Results found a weak full mediation of this relationship through AOC. Therefore hypothesis 7 is also not confirmed.

#### **Developmental feedback and OCB (direct effect, path $c'$ )**

The statistically non-significant relationship between developmental feedback and OCB in the mediation model partially contradicts findings of Organ et al. (2006). Organ et al. (2006) found a direct effect of task feedback on two components, civic virtue and conscientiousness, of OCB. These authors applied the conceptualization of task feedback by Hackman and Oldham (1976), which refers to the effectiveness of employees' task performance. Thus, their conceptualization deviates from the one of developmental feedback used in this study. Moreover, Organ et al. (2006) examined OCB by its components and not as a combined concept, consisting of OCB-I and OCB-O, as applied in this research.

Apart from that, considering the content of developmental feedback, it mostly refers to employees' future development and growth within, and of the organization itself, however does not address social aspects like teamwork and cooperation. This is in line with Morrison (1993) suggesting that supervisors' feedback primarily entails technical and role information to employees while colleagues' feedback encompasses more social and normative information. Thus, it is likely that employees exhibited more OCBs directed at their organization (OCB-O) rather than towards colleagues (OCB-I). The post-hoc mediation analyses revealed that developmental feedback had a statistically significant relationship with OCB-O with AOC in the model (path  $c'$ :  $b = .13$ , 95% CI [.02, .24],  $t = 2.37$ ,  $p = .02$ ), however not with OCB-I (path  $c'$ :  $b = -.03$ , 95% CI [-.12, .06],  $t = -.62$ ,  $p = .54$ ). Concerning the post-hoc hierarchical multiple regression (cf. *Regression analysis 1, Appendix 6*), there is no significant relationship between developmental feedback and OCB ( $\beta = .16$ ,  $F(1,102) = 2.82$ ,  $p = .10$ ). Further, only little variance in OCB is explained by developmental feedback ( $R^2 = .03$ ).

#### **Task interdependence and OCB (direct effect, path $c_2'$ )**

The statistically non-significant relationship between task interdependence and OCB in the mediation analysis partially contradicts study results by Chen et al. (2009). In their research, supervisors evaluated employees' OCBs, which could have biased the results as supervisors are not able to notice all citizenship behaviors (e.g. employees' mental activities), (Chiu & Chen, 2005). Referring back to Pearce and Gregersen (1991), they investigated that the task interdependence-OCB relationship was only existent through a mediator. Thus, they claimed

that structural job characteristics, e.g. task interdependence, may only increase the likelihood of employees displaying OCBs through mediating variables, which supports the current result. Apart from that, Schnake and Dumler (2003) state that task interdependence can also be seen as a group/ team-level phenomena, whose outcome, extra-role behaviors, is more likely to be visible at an individual (OCB-I) instead of an organizational level (OCB-O). The team-member exchange (TMX) theory provides theoretical basis for this as it affirms that individuals' perceptions of high exchanges, involve in supportive actions towards each other that go beyond what is required for completing the task (Liden, Wayne, & Sparrowe, 2000). This can be put on equal terms with OCB-I. Post-hoc mediation analyses however revealed that task interdependence did not have a statistically significant relationship with OCB-O while AOC being in the model (path  $c'$ :  $b = .04$ , 95% CI [-.08, .16],  $t = .71$ ,  $p = .48$ ), neither with OCB-I (path  $c'$ :  $b = .03$ , 95% CI [-.07, .12],  $t = .58$ ,  $p = .56$ ). This result confirmed the statement of Pearce and Gregersen (1991) once again that task interdependence is only associated with OCB through mediating variables. In regards to the post-hoc hierarchical multiple regression (cf. *Regression analysis 2, Appendix 6*), there was no significant relationship between task interdependence and OCB ( $\beta = .18$ ,  $F(1,102) = 3.35$ ,  $p = .07$ ). Moreover, only little variance in OCB is accounted for by task interdependence ( $R^2 = .03$ ).

#### **Developmental feedback and AOC (path $a_1$ )**

The mediation analysis demonstrated unexpected results concerning the relationship between developmental feedback and AOC, contradicting various study results (e.g., Eby et al., 1999; Joo & Park, 2010). The conceptualization of feedback in the study conducted by Eby et al. (1999) differentiates from the one used in this research. This might motivate further research to clarify the observed relationship in the presence of different feedback conceptualizations.

#### **Task interdependence and AOC (path $a_2$ )**

As expected, evidence was found, through conducting a mediation analysis, for task interdependence and AOC being significantly related to each other. This is in line with findings of various authors (e.g., Bishop & Scott, 2000; Meyer et al., 2002). Thus, when employees require each other's support, they realize that their efforts and contributions are important for the success of the workgroup and organization overall. Consequently, employees feel actively involved, affectively commitment towards their organization and enjoy their organizational membership in their organization.

### **AOC and OCB (path $b_1, b_2$ )**

As expected, AOC had a statistically significant effect on OCB, which is supported by many other studies (e.g. Meyer et al., 2002). Employees who are affectively committed towards their organization, generally feel highly involved and enjoy their membership in the organization. Subsequently, they are motivated to reciprocate by going beyond their required roles through executing OCBs.

### **Effect of developmental feedback on OCB through AOC (indirect effect, path $a_1b_1$ )**

Unexpectedly, AOC did not partially mediate the relationship between developmental feedback and OCB, which contradicts study results of Norris-Watts and Levy (2004). These authors however examined the so-called 'Feedback Environment', involving aspects like Source Credibility and Feedback Quality, which was not accounted for in this study. Even post-hoc mediation analyses revealed that AOC did not play a mediating role concerning the relationship between developmental feedback and OCB-O (path  $ab$ :  $b = .03$ , BCa CI [-.02, .08]), and OCB-I (path  $ab$ :  $b = .01$ , BCa CI [-.01, .04]).

### **Effect of task interdependence on OCB through AOC (indirect effect, path $a_2b_2$ )**

Furthermore, no evidence was found for AOC partially mediating the relationship between task interdependence and OCB. Yet, results demonstrate a weak full mediation of this relationship through AOC. Thus, when employees work highly interdependent on a task, they develop an affective commitment towards their organization, which in turn makes them invest in OCBs.

### **Limitations and recommendations for future research**

Although this study offers new perspectives on work/task characteristics, AOC and OCB, there are a few limitations. These limitations are partially supplemented with implications for future research.

First, the sample size was lower as originally aimed for, due to external circumstances (COVID-19) aggravating the data collection. For this reason, the power was attacked and the generalizability of findings might be 'violated'. Additionally, the data collection took place while all employees were working from home due to COVID-19, which might have influenced employees' perception concerning e.g. their affective organizational commitment and level of task interdependence. Future research is recommended to use larger sample sizes and to replicate or extend current findings under normal work circumstances.

Second, there might be a risk for a common method bias, thus Harman's Single-Factor Test, which is a commonly used technique, was executed (Podsakoff et al., 2003). Regarding

the output, the maximum variance, which is explained by a single component, is 20.18. Therefore, it can be assumed that the data does not suffer from the common method bias as the variance explained by a single factor is less than 50%, being the threshold (Eichhorn, 2014). To note, the results of this test however need to be viewed carefully as the Harman's Single-Factor Test also has its limitations (Podsakoff et al., 2003).

Third, although the scale for developmental feedback by Zhou (2003) provided evidence for an adequate validity and reliability, there might be more issues needing to be addressed to capture the complex construct of SDF (Zheng et al., 2015). For this reason, Zheng et al. (2015) developed a supervisor developmental feedback scale, based on the one by Zhou (2003), to capture positive and negative SDF domains. Yet, Zheng et al. (2015) mentioned in their limitations that both SDF domains were acquired through employees' self-reports. According to Zheng et al. (2015), this could have been subject to e.g. social influence and social desirability. Due to these limitations concerning the construction of their scale, this study did not apply their scale to capture the construct of developmental feedback. Overall, future research is recommended to dive deeper into the few existing measures in order to develop them further.

Fourth, post-hoc analyses revealed that there is a significant direct effect of developmental feedback on OCB-O. Accordingly, future research is recommended to differentiate upfront between OCB-I and OCB-O and to measure both by means of separate scales.

Lastly, there was hardly variance in OCB ( $M = 5.89$ ,  $SD = .47$ ), which might be inferred to people's tendency to respond in a socially desirable way (Podsakoff et al., 2003). Even though Harman's Single-Factor Test already seemed to have controlled for common method biases, social desirability might be still one of its potential reasons. Therefore, future research is recommended to replicate this study in order to investigate if there is an increase in variance. Additionally, future research could also include multiple sources of OCB measures (e.g. from supervisor) to increase the variation in OCB. However, this approach also has its limitation as external observers are not able to notice all OCBs (Chiu & Chen, 2005).

### **Practical implications**

Overall, this study contributes to the existing body of literature addressing the organizational context and yields relevant practical implications, specifically for HRM and managers/supervisors. More specifically, this study should increase the awareness towards the importance of work design, embedded in the social context.

Regarding developmental feedback's mean score ( $M = 5.55$ ,  $SD = 1.03$ ), supervisors ought to increase their frequency of giving feedback and/ or change the way they provide feedback. Complementarily, organizations are recommended to provide coaching for supervisors addressing topics which evolve around developmental feedback (e.g. How to give adequate developmental feedback?, How often should developmental feedback be given?). Furthermore, taken the mean score of AOC ( $M = 5.30$ ,  $SD = .76$ ) into consideration, the mean score is not too high and AOC showed little more variation compared to OCB ( $M = 5.89$ ,  $SD = .47$ ). As a committed workforce is highly beneficial for an organization overall performance level, organizations are advised to take measures in order to foster their employees' AOC through e.g. involving them in decision making processes regarding their own work and/ or treating all employees equitably (Allen & Meyer, 1990).

Moreover, this study confirmed the assumption of Pearce and Gregersen (1991) that task interdependence is only associated with extra-role behaviors through mediators, in this instance AOC. This study even showed that AOC fully mediated the relationship between task interdependence and OCB. According to Bishop and Scott (2000), the relationship between task interdependence and AOC can be enhanced through regularly providing team building measures in which they accentuate the relevance of each employee's contribution to the workgroup and organization overall (Bishop and Scott, 2000). Consequently, employees are assumed to realize their importance in the comprehensive work process and this, in turn, is ought to increase their positive affect directed at the organization (Bishop & Scott, 2000; Morris & Steers, 1980), which can be put on equal terms with AOC (Lee & Allen, 2002).

## **Conclusion**

This study investigated that developmental feedback and task interdependence are weak antecedents of OCB. Moreover, results showed that AOC does not mediate the relationship between developmental feedback and OCB, whereas fully mediating the relationship between task interdependence and OCB. Overall, these findings yield valuable directions for future research accompanied by practical implications for companies. Future research is recommended to explore and further develop the few existing scales of developmental feedback to fully capture its construct. Moreover, researchers are advised to differentiate between OCB-I and OCB-O upfront as both subdimensions seem to have distinct antecedents. Due to AOC fully mediating the relationship between task interdependence and OCB, organizations are recommended to implement team building measure to further increase their employees' AOC. In conjunction, companies are advised to involve employees e.g. in decision making processes, which is also assumed to foster AOC.

## References

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18. doi: 10.1111/j.2044-8325.1990.tb00506.x
- Allen, T. D., & Rush, M. C. (1998). The effects of organizational citizenship behavior on performance judgments: A field study and a laboratory experiment. *Journal of Applied Psychology*, 83(2), 247. doi: 10.1037/0021-9010.83.2.247
- Allen, R. S., Evans, W. R., & White, C. S. (2011). Affective organizational commitment and organizational citizenship behavior: examining the relationship through the lens of equity sensitivity. *Organization Management Journal*, 8(4), 218-228. doi: 10.1057/omj.2011.40
- Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal*, 34(2), 251–280. doi: 10.2307/256442
- Bachrach, D. G., Powell, B. C., Bendoly, E., & Richey, R. G. (2006). Organizational citizenship behavior and performance evaluations: Exploring the impact of task interdependence. *Journal of Applied Psychology*, 91(1), 193. doi: 10.1037/0021-9010.91.1.193
- Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management*, 7(3–4), 65–89. doi: 10.1300/J075v07n03\_05
- Banks, G. C., Batchelor, J. H., Seers, A., O’Boyle Jr, E. H., Pollack, J. M., & Gower, K. (2014). What does team–member exchange bring to the party? A meta-analytic review of team and leader social exchange. *Journal of Organizational Behavior*, 35(2), 273–295. doi: 10.1002/job.1885
- Barbuto, J. E., Brown, L. L., Wilhite, M. S., & Wheeler, D. W. (2001). Testing the underlying motives of organizational citizenship behaviors: A field study of agricultural co-op workers. *28th Annual National Agricultural Education Research Conference*, 539–553.
- Barling, J., & Cooper, C. (2008). *The SAGE Handbook of Organizational Behavior: Volume I - Micro Approaches*. London: SAGE Publications Ltd. doi: 10.4135/9781849200448
- Bishop, J. W., & Scott, K. D. (2000). An examination of organizational and team commitment in a self-directed team environment. *Journal of Applied Psychology*, 85(3), 439. doi: 10.1037/0021-9010.85.3.439

- Blau, P. (1964). *Exchange and Power in Social Life*. Routledge. doi: 10.4324/9780203792643
- Chen, C. H. V., Tang, Y. Y., & Wang, S. J. (2009). Interdependence and organizational citizenship behavior: Exploring the mediating effect of group cohesion in multilevel analysis. *The Journal of Psychology*, 143(6), 625–640. doi: 10.1080/00223980903218273
- Chiu, S. F., & Chen, H. L. (2005). Relationship between job characteristics and organizational citizenship behavior: The mediational role of job satisfaction. *Social Behavior and Personality: An International Journal*, 33(6), 523–540. doi: 10.2224/sbp.2005.33.6.523
- Cook, K. S. (2015). Exchange: Social. *International Encyclopedia of the Social & Behavioral Sciences*, 482–488. doi:10.1016/b978-0-08-097086-8.32056-6
- Cropanzano, R., & Mitchell, M. (2017). *Social exchange theory*. In S. Rogelberg (Ed.), *The SAGE Encyclopedia of Industrial and Organizational Psychology* (2nd ed.; pp. 1458–1460). Thousand Oaks, CA: SAGE Publications. doi: 10.4135/9781483386874
- Cropanzano, R., James, K., & Konovsky, M. A. (1993). Dispositional affectivity as a predictor of work attitudes and job performance. *Journal of Organizational Behavior*, 14(6), 595–606. doi: 10.1002/job.4030140609
- Eby, L. T., Freeman, D. M., Rush, M. C., & Lance, C. E. (1999). Motivational bases of affective organizational commitment: A partial test of an integrative theoretical model. *Journal of Occupational and Organizational Psychology*, 72(4), 463–483. doi: 10.1348/096317999166798
- Eichhorn, B. R. (2014). Common method variance techniques. *Cleveland State University, Department of Operations & Supply Chain Management*. Cleveland, OH: SAS Institute Inc, 1-11.
- Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: The roles of source power and recipient self-esteem. *Journal of Management*, 27(1), 79–97. doi: 10.1177/014920630102700105
- Gong, B., Greenwood, R. A., Hoyte, D., Ramkissoon, A., & He, X. (2018). Millennials and organizational citizenship behavior. *Management Research Review*. doi: 10.1108/MRR-05-2016-0121
- Gully, S. M., Devine, D. J., & Whitney, D. J. (1995). A meta-analysis of cohesion and performance: Effects of level of analysis and task interdependence. *Small Group Research*, 26(4), 497–520. doi: 10.1177/1046496495264003

- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. doi: 10.1016/0030-5073(76)90016-7
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley. doi: 10.1177/105960118200700110
- Hayes, A.F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (2nd ed.). New York: The Guilford Press.
- Jahangir, N., Akbar, M. M., & Haq, M. (2004). *Organizational citizenship behavior: Its nature and antecedents*.
- Jakobsen, M., & Jensen, R. (2015). Common method bias in public management studies. *International Public Management Journal*, 18(1), 3–30. doi: 10.1080/10967494.2014.997906
- Joo, B. K. B., & Park, S. (2010). Career satisfaction, organizational commitment, and turnover intention. *Leadership & Organization Development Journal*. doi: 10.1108/01437731011069999
- Kiggundu, M. N. (1981). Task interdependence and the theory of job design. *Academy of Management Review*, 6(3), 499–508. doi: 10.5465/amr.1981.4285795
- Krebs, D. L. (1970). Altruism: An examination of the concept and a review of the literature. *Psychological Bulletin*, 73(4), 258–302. doi: 10.1037/h0028987
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 87(1), 131. doi: 10.1037/0021-9010.87.1.131
- Li, N., Harris, T. B., Boswell, W. R., & Xie, Z. (2011). The role of organizational insiders' developmental feedback and proactive personality on newcomers' performance: An interactionist perspective. *Journal of Applied Psychology*, 96(6), 1317. doi: 10.1037/a0024029
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology*, 85(3), 407. doi: 10.1037/0021-9010.85.3.407

- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89. doi: 10.1016/1053-4822(91)90011-Z
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*(4), 538. doi: 10.1016/1053-4822(91)90011-Z
- Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology, 89*(6), 991. doi: 10.1037/0021-9010.89.6.991
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11*(3), 299–326. doi: 10.1016/S1053-4822(00)00053-X
- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review, 20*(4), 283–294. doi: 10.1016/j.hrmr.2009.09.001
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20–52. doi: 10.1006/jvbe.2001.1842
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology, 91*(6), 1321. doi: 10.1037/0021-9010.91.6.1321
- Morris, J. H., & Steers, R. M. (1980). Structural influences on organizational commitment. *Journal of Vocational Behavior, 17*(1), 50–57. doi: 10.1016/0001-8791(80)90014-7
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal, 36*(3), 557–589. doi: 10.2307/256592
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee—Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. Academic Press.
- Ng, T. W., & Feldman, D. C. (2010). Organizational tenure and job performance. *Journal of Management, 36*(5), 1220–1250. doi: 10.1177/0149206309359809

- Norris-Watts, C., & Levy, P. E. (2004). The mediating role of affective commitment in the relation of the feedback environment to work outcomes. *Journal of Vocational Behavior*, 65(3), 351–365. doi: 10.1016/j.jvb.2003.08.003
- Organ, D. W., Podsakoff, P., & MacKenzie, S. (2006). *Organizational Citizenship Behavior: Its nature, antecedents, and consequences*. SAGE Publications. doi: 10.4135/9781452231082
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington Books/D. C. Heath and Com.
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2), 85–97. doi: 10.1207/s15327043hup1002\_2
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775–802. doi: 10.1111/j.1744-6570.1995.tb01781.x
- Pearce, J. L., & Gregersen, H. B. (1991). Task interdependence and extrarole behavior: A test of the mediating effects of felt responsibility. *Journal of Applied Psychology*, 76(6), 838. doi: 10.1037/0021-9010.76.6.838
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122–141. doi: 10.1037/a0013079
- Podsakoff, P. M., & MacKenzie, S. B. (1997). Impact of organizational citizenship behavior on organizational performance: A review and suggestion for future research. *Human Performance*, 10(2), 133–151. doi: 10.1207/s15327043hup1002\_5
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879. doi: 10.1037/0021-9010.88.5.879
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 513–563. doi: 10.1016/S0149-2063(00)00047-7
- Qualtrics, LLC. (n.d.). Qualtrics [computer software]. Retrieved March 2020 from: <https://www.qualtrics.com/de/>.

- Rioux, S. M., & Penner, L. A. (2001). The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology, 86*(6), 1306. doi: 10.1037/0021-9010.86.6.1306
- Schnake, M. E., & Dumler, M. P. (2003). Levels of measurement and analysis issues in organizational citizenship behaviour research. *Journal of Occupational and Organizational Psychology, 76*(3), 283–301. doi: 10.1348/096317903769647184
- Smith, C., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology, 68*(4), 653. doi: 10.1037/0021-9010.68.4.653
- Van der Vegt, G. S., Emans, B. J., & Van de Vliert, E. (2001). Patterns of interdependence in work teams: A two-level investigation of the relations with job and team satisfaction. *Personnel Psychology, 54*(1), 51–69. doi: 10.1111/j.1744-6570.2001.tb00085.x
- Van der Vegt, G. S., Van de Vliert, E., & Oosterhof, A. (2003). Informational dissimilarity and organizational citizenship behavior: The role of intrateam interdependence and team identification. *Academy of Management Journal, 46*(6), 715–727. doi: 10.2307/30040663
- Van der Ende, J. (2013). Relations between perceived overqualification and extra role behaviour: A survey research on the moderating effect of the AMO practices. Retrieved from <https://arno.uvt.nl/show.cgi?fid=132657>
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*(3), 601–617. doi: 10.1177/014920639101700305
- Zheng, X., Diaz, I., Jing, Y., & Chiaburu, D. S. (2015). Positive and negative supervisor developmental feedback and task-performance. *Leadership & Organization Development Journal*. doi: 10.1108/LODJ-04-2013-0039
- Zhou, J. (2003). When the presence of creative coworkers is related to creativity: Role of supervisor close monitoring, developmental feedback, and creative personality. *Journal of Applied Psychology, 88*(3), 413. doi: 10.1037/0021-9010.88.3.413

## **Appendices**

Appendix 1: Scales

Appendix 2: Questionnaire

Appendix 3: Principal component analysis (PCA) 1

Appendix 4: Principal component analysis (PCA) 2

Appendix 5: Post-hoc mediation analyses (incl. preliminary analyses: Descriptive statistics and correlations, principal component analysis, reliability analysis)

Appendix 6: Post-hoc hierarchical multiple regressions

## Appendix 1: Scales

Items	Dimension
Willingly give your time to help others who have work-related problems (OCB-I).	OCB
Adjust your work schedule to accommodate other employees' requests for time off. (OCB-I).	
Give up time to help others who have work or non-work problems (OCB-I).	
Assist others with their duties (OCB-I).	
Attend functions that are not required but that help the organizational image (OCB-O).	
Offer ideas to improve the functioning of the organization (OCB-O).	
Take action to protect the organization from potential problems (OCB-O).	
Defend the organization when other employees criticize it (OCB-O).	
<hr/>	
I feel personally attached to my work organization.	AOC
I feel a strong sense of belonging to my organization.	
I am proud to tell others that I am part of this organization.	
Working at my organization has a great deal of personal meaning to me.	
I would be happy to work at my organization until I retire.	
I really feel that problems faced by my organization are also my problems.	
<hr/>	
While giving me feedback, my supervisor focuses on helping me to learn and improve.	SDF
My immediate supervisor never gives me developmental feedback.	
My supervisor provides me with useful information on how to improve my job performance.	
<hr/>	
I have to obtain information and advice from my colleagues in order to complete my work.	

I depend on my colleagues for the completion of my work.

I have a one-person job; I rarely have to check or work with others.

TI

I have to work closely with my colleagues to do my work properly.

In order to complete their work, my colleagues have to obtain information and advice from me.

---

*Note.* OCB = Organizational Citizenship Behavior, OCB-I = Organizational Citizenship Behavior directed at individuals, OCB-O = Organizational Citizenship Behavior directed at the organization, AOC = Affective Organizational Commitment, SDF = Supervisor Developmental Feedback, TI = Task Interdependence

## **Appendix 2: Questionnaire**

WELCOME!

Dear participant.

Thank you for choosing to participate in my research project, which is part of my Master program Social, Health and Organizational Psychology at the University of Utrecht. I highly appreciate your time and support!

### **What's the aim of my research project?**

My research project examines various factors stimulating work behaviors which in turn should promote the overall effective functioning of an organization.

### **How is the survey set-up?**

The survey's questionnaire, containing 22 questions, should take you approximately 5 minutes to complete. Before entering the survey questionnaire, you are asked to select your age group, gender, highest educational level and tenure; the personal demographic data will be utilized only to classify the overall research sample.

### **What happens with the data?**

Your data is guaranteed to be anonymized and thus cannot be traced back to you as a person. The computer storing the gathered data is secured to the highest standards and your data will not be used for follow-up studies. Moreover, solely the Master student researcher and supervisor involved in this study will have access to the data.

### **Informed consent.**

By entering this survey, you voluntarily agree to participate in this research project. If for any reason you feel uncomfortable answering the questions, you can withdraw at any given moment without any consequences and no explanation is needed. Through completing this survey, you've given the researcher the consent to make use of the provided information. By continuing onto the next page, you declare that you have read and understood the information

concerning this research project. In case you have any questions and/ or concerns, feel free to contact me (n.hopf@students.uul.nl).

- I understand and agree to participate in this research project.
- I do not wish to participate in this research project.

#### Age group

- Less than 21 years
- 21-25 years
- 26-30 years
- 31-35 years
- 36-40 years
- 40+ years

#### Gender

- Female
- Male
- Other

#### Highest educational level

- High school graduate
- Bachelor's degree
- Diploma/Magister/Master
- PhD
- Unknown degree
- Other

How long have you been working with the current employer?

- Less than 3 months
- 3-6 months

- 7-12 months
- 13-24 months
- 25-36 months
- 3+ years

The following statements refer to the extent in which you as an employee go the 'extra-mile' for your colleagues and organization overall.

Please select how much you agree or disagree with the statements below.

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Willingly give your time to help others who have work-related problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adjust your work schedule to accommodate other employees' requests for time off.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Give up time to help others who have work or non-work problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assist others with their duties.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attend functions that are not required but that help the organizational image.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offer ideas to improve the functioning of the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Take action to protect the organization from potential problems.	<input type="radio"/>
Defend the organization when other employees criticize it.	<input type="radio"/>

The following statements refer to the extent in which you as an employee receive developmental feedback from your supervisor.

Please select how much you agree or disagree with the statements below.

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
While giving me feedback, my supervisor focuses on helping me to learn and improve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My immediate supervisor never gives me developmental feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor provides me with useful information on how to improve my job performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements refer to the extent in which you as an employee require information, materials, and support from other team members in order to carry out your tasks.

Please select how much you agree or disagree with the statements below.

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
I have to obtain information and advice from my colleagues in order to complete my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I depend on my colleagues for the completion of my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a one-person job; I rarely have to check or work with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have to work closely with my colleagues to do my work properly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In order to complete their work, my colleagues have to obtain information and advice from me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements refer to the degree in which you as an employee feel emotionally or affectively attached to your organization.

*Please select how much you agree or disagree with the statements below.*

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
I feel a strong sense of belonging to my organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel personally attached to my work organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to tell others that I am part of this organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working at my organization has a great deal of personal meaning to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be happy to work at my organization until I retire..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Appendix 3: Principal component analysis (PCA) 1

Table 4

*Pattern matrix as a result of a principal component analysis using oblique rotation (rotation method: Oblimin), (N = 104).*

	Component/Factor						
	1	2	3	4	5	6	7
OCB (item 1)	.13	.16	.11	.10	.76	.004	.02
OCB (item 2)	-.20	-.21	-.05	.17	.36	.38	.38
OCB (item 3)	.17	-.17	.02	-.13	.76	.02	-.03
OCB (item 4)	-.04	.04	-.19	-.04	.30	.71	-.06
OCB (item 5)	.003	-.12	.15	.21	-.13	.65	.09
OCB (item 6)	.02	.01	-.03	.88	-.09	-.03	-.06
OCB (item 7)	-.01	.07	.12	.80	.05	.23	-.06
OCB (item 8)	.52	.09	.04	.12	-.12	.45	-.11
SDF (item 1)	-.03	.04	.94	-.09	-.02	.06	.003
SDF (item 2)	.06	-.04	.63	.07	.10	-.11	-.48
SDF (item 3)	-.04	-.01	.87	.08	.07	-.04	.17
TI (item 1)	-.23	-.83	.02	.06	.13	-.13	-.09
TI (item 2)	-.03	-.84	-.06	.10	.13	-.08	-.09
TI (item 3)	.25	-.28	-.01	.01	-.08	.23	-.61
TI (item 4)	.28	-.61	-.02	-.18	-.16	.29	-.09
TI (item 5)	.12	-.72	.02	-.11	-.20	.14	.16
AOC (item 1)	.72	.02	.06	.09	.21	.07	.07
AOC (item 2)	.85	.05	-.02	-.05	.16	-.01	.03
AOC (item 3)	.68	.06	.03	.03	.17	.15	-.23
AOC (item 4)	.74	-.17	.01	.09	-.12	-.31	.01
AOC (item 5)	.49	.04	.06	-.14	-.09	.28	.57
AOC (item 6)	.33	-.20	-.02	.40	.05	-.12	.34
Eigenvalue	3.64	2.77	2.42	2.18	1.81	2.21	1.43
% of variance	20.18	12.47	9.57	8.63	6.34	5.49	5.06

*Note.* OCB = Organizational Citizenship Behavior, SDF = Supervisor Developmental Feedback, TI = Task Interdependence, AOC = Affective Organizational Commitment

## Appendix 4: Principal component analysis (PCA) 2

Table 5

*Pattern matrix as a result of principal component analysis, reduced to 4 fixed factors, using oblique rotation (rotation method: Oblimin), (N = 104).*

	Component/Factor			
	1	2	3	4
OCB (item 1)	.12	.28	.16	.53
OCB (item 2)	-.14	-.10	-.19	.73
OCB (item 3)	.16	-.04	-.03	.40
OCB (item 4)	.15	.03	-.34	.52
OCB (item 5)	.18	-.16	.03	.44
OCB (item 6)	-.09	-.10	.40	.45
OCB (item 7)	-.02	-.01	.43	.61
OCB (item 8)	.64	-.01	.04	.14
SDF (item 1)	.10	.12	.78	-.04
SDF (item 2)	.10	-.07	.78	-.15
SDF (item 3)	.02	.11	.77	.15
TI (item 1)	-.32	-.80	.06	.12
TI (item 2)	-.12	-.83	.000	.16
TI (item 3)	.32	-.44	.14	-.16
TI (item 4)	.35	-.65	-.16	-.05
TI (item 5)	.13	-.70	-.15	.02
AOC (item 1)	.72	.03	.08	.19
AOC (item 2)	.84	.05	-.01	-.002
AOC (item 3)	.72	.01	.12	.04
AOC (item 4)	.63	-.20	.14	-.22
AOC (item 5)	.58	.13	-.24	.19
AOC (item 6)	.21	-.16	.09	.35
Eigenvalue	3.81	2.82	2.58	2.72
% of variance	20.18	12.47	9.57	8.63

*Note.* OCB = Organizational Citizenship Behavior, SDF = Supervisor Developmental Feedback, TI = Task Interdependence, AOC = Affective Organizational Commitment

## Appendix 5: Post-hoc mediation analyses

Table 6

*Descriptive statistics and correlations (N = 104).*

	M	SD	1	2	3	4	5	6	7	8	9
1. Age <sup>a</sup>	3.17	1.14	1								
2. Gender <sup>b</sup>	1.48	.50	.14	1							
3. Education <sup>c</sup>	2.52	.91	.23**	.19*	1						
4. Tenure <sup>d</sup>	3.21	1.53	.25**	.13	.03	1					
5. OCB-I	5.98	.49	.03	-.10	-.09	.01	1				
6. OCB-O	5.81	.65	.11	-.02	.09	-.05	.31**	1			
7. AOC	5.30	.76	.06	.05	.03	.11	.27**	.46**	1		
8. SDF	5.55	1.03	-.002	-.17*	.05	-.20*	-.03	.26**	.11	1	
9. TI	5.19	.998	.13	.05	.12	-.02	.12	.17*	.23**	-.02	1

*Note.* M = Mean, SD = Standard Deviation, SDF = Supervisor Developmental Feedback, TI = Task Interdependence, OCB-I = Organizational Citizenship Behavior directed at the Individual, OCB-O = Organizational Citizenship Behavior directed at the Organization; <sup>a</sup> Age: 1 = Less than 21 years, 2 = 21-25 years, 3 = 26-30 years, 4 = 31-35 years, 5 = 36-40 years, 6 = 40+ years ; <sup>b</sup> Gender: 1 = 'Female', 2 = 'Male'; <sup>c</sup> Education: 1 = High school graduate, 2 = Bachelor's degree, 3 = Diploma/ Magister/Master, 4 = PhD, 5 = Unknown degree & Other; <sup>d</sup> Tenure: 1 = Less than 3 months, 2 = 3-6 months, 3 = 7-12 months, 4 = 13-24 months, 5 = 25-36 months, 6 = 3+ years

\* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed)

Table 7

*Pattern matrix as a result of a principal component analysis, reduced to 2 fixed factors, using oblique rotation (rotation method: Oblimin), and reliabilities of both scales (N = 104).*

	Component/Factor	
	1	2
OCB-I (item 1)	.64	-.04
OCB-I (item 2)	.52	-.20
OCB-I (item 3)	.76	.17
OCB-I (item 4)	.68	-.01
OCB-O (item 5)	.27	-.45
OCB-O (item 6)	-.25	-.87
OCB-O (item 7)	.01	-.85
OCB-O (item 8)	.20	-.43
Eigenvalue	2.03	2.07
% of variance	30.34	17.44
Cronbach's $\alpha$	.57	.62

*Note.* OCB-I = Organizational Citizenship Behavior directed at the Individual, OCB-O = Organizational Citizenship Behavior directed at the Organization

Table 8

Results of the post-hoc mediation analyses of the relationship between developmental feedback and OCB-O (Post-hoc mediation analysis 1), and between developmental feedback and OCB-I with AOC as a mediator (Post-hoc mediation analysis 2), ( $N = 104$ ).

Post-hoc mediations analysis 1							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i>	SDF	AOC	.08	.07	.25	[-.06, .23]	.01
<i>c</i>	SDF	OCB-O	.16	.06	<b>.01*</b>	[.04, .28]	.07
<i>c'</i>	SDF	OCB-O	.13	.06	<b>.02*</b>	[.02, .24]	.25
<i>b</i>	AOC		.38	.07	< .001**	[.23, .52]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1ab</i>			.03	.02	[-.02, .08]		

Post-hoc mediations analysis 2							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i>	SDF	AOC	.08	.07	.25	[-.06, .23]	.01
<i>c</i>	SDF	OCB-I	-.01	.05	.77	[-.11, .08]	.001
<i>c'</i>	SDF	OCB-I	-.03	.05	.54	[-.12, .06]	.08
<i>b</i>	AOC		.18	.06	.01*	[.05, .30]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1ab</i>			.01	.01	[-.01, .04]		

Note. *b* = Coefficient, *SE* = Standard Error, CI = Confidence Interval, *R*<sub>2</sub> = R square, BCI = Bootstrapped Confidence Interval, BSE = Bootstrapped Standard Error

\*  $p < .05$ , \*\* $p < .001$

<sup>1</sup> The paths *ab* in the table show the estimated indirect effects (*b*) and the according bootstrapped standard errors and confidence intervals (2-sided)

Table 9

Results of the post-hoc mediation analyses of the relationship between task interdependence and OCB-O (Post-hoc mediation analysis 3), and between task interdependence and OCB-I with AOC as a mediator (Post-hoc mediation analysis 4), ( $N = 104$ ).

Post-hoc mediations analysis 3							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i>	TI	AOC	.18	.07	.02	[.03, .32]	.05
<i>c</i>	TI	OCB-O	.11	.06	.09	[-.02, .24]	.03
<i>c'</i>	TI	OCB-O	.04	.06	.48	[-.08, .16]	.22
<i>b</i>	AOC		.38	.08	< .001**	[.23, .54]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1ab</i>			.07	.03	[.01, .13]		

Post-hoc mediations analysis 4							
path	X	Y	<i>b</i>	<i>SE</i>	<i>p</i>	95% CI	<i>R</i> <sub>2</sub>
<i>a</i>	TI	AOC	.18	.07	.02*	[.03, .32]	.05
<i>c</i>	TI	OCB-I	.06	.05	.24	[-.04, .15]	.01
<i>c'</i>	TI	OCB-I	.03	.05	.56	[-.07, .12]	.07
<i>b</i>	AOC		.16	.06	.01*	[.04, .29]	
			<i>b</i>	<i>BSE</i>	95% BCI		
<i>1ab</i>			.03	.02	[.002, .07]		

Note. *b* = Coefficient, *SE* = Standard Error, CI = Confidence Interval, *R*<sub>2</sub> = R square, BCI = Bootstrapped Confidence Interval, BSE = Bootstrapped Standard Error

\*  $p < .05$ , \*\* $p < .001$

<sup>1</sup> The paths *ab* in the table show the estimated indirect effects (*b*) and the according bootstrapped standard errors and confidence intervals (2-sided)

## Appendix 6: Post-hoc hierarchical multiple regressions

Table 10

Summary of two hierarchical multiple regression analyses for the independent variables, developmental feedback and AOC, predicting OCB (Regression analysis 1) and for the independent variables, task interdependence and AOC predicting organizational citizenship behavior (Regression analysis 2), ( $N = 104$ ).

Regression analysis 1								
Organizational citizenship behavior (Dependent Variable)								
Independent Variables	Model 1 <sub>a</sub>				Model 2 <sub>b</sub>			
	<i>b</i>	<i>SE</i>	$\beta$	<i>p</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>p</i>
<sup>a</sup> SDF	.07	.04	.16	.10				
<sup>b</sup> SDF					.05	.04	.11	.20
<sup>b</sup> AOC					.28	.05	.45	<.001**
F			2.82				14.90**	
$R_2$			.03				.23**	
$\Delta R_2$							.20**	
<i>df</i>			1,102				1,101	
Regression analysis 2								
Organizational citizenship behavior (Dependent Variable)								
Independent Variables	Model 1 <sub>a</sub>				Model 2 <sub>b</sub>			
	<i>b</i>	<i>SE</i>	$\beta$	<i>p</i>	<i>b</i>	<i>SE</i>	$\beta$	<i>p</i>
<sup>a</sup> TI	.08	.05	.18	.07				
<sup>b</sup> TI					.04	.04	.08	.41
<sup>b</sup> AOC					.28	.06	.45	<.001**
F			3.35				14.29**	
$R_2$			.03				.22**	
$\Delta R_2$							.19**	
<i>df</i>			1,102				1,101	

*Note.*  $b$  = Coefficient,  $SE$  = Standard Error,  $\beta$  = Beta,  $R^2$  = R square,  $\Delta R^2$  = R square change,  $df$  = degrees of freedom, AOC = Affective Organizational Commitment, SDF = Supervisor Developmental Feedback, TI = Task Interdependence

\* $p < .05$ , \*\* $p < .001$