

Reevaluating the performance-enhancing narrative behind organizational citizenship

behaviors: Collective outcomes at the individual's expense

Thomas Knutsson 6972810

Utrecht University

Reviewer: Dr. Bibiana Maria Armenta Gutierrez

Second reviewer: Dr. Wieby Altink-van den Berg

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Introduction

The concept of organizational citizenship behavior (OCB) aims to describe behaviors that go beyond employees' assigned responsibilities and are beneficial for organizations' objectives (Organ, 1990). In short, OCB refers to behaviors that directly benefit either an organization (OCBO) or its individuals (OCBI) through behaviors that are altruistic, supportive and are not part of ones official job-description (i.e. in-role behaviors) (Smith, Organ & Near, 1983). Meta-analytic studies have generally found that OCB is linked to favorable outcomes such as higher organizational performance (Nielsen, Hrivnak & Shaw., 2009) as well as reduced turnover (Sun, Aryee, & Law, 2007), higher productivity and improved efficiency (Podsakoff, Whiting, Podsakoff & Blume. 2009; Wei. 2014).

Given the seemingly beneficial nature of having an OCB-engaging workforce, it is perhaps not surprising that a large segment of OCB research has aimed to document OCB's preceding factors and to establish their links to performance outcomes through OCB (Podsakoff et al., 2009; Wei. 2014). In addition to the apparent benefits of OCB engagement however, employers and researchers should also consider what implications the concept has for employees who choose to exhibit such behaviors at the expense of their limited time and resources. For instance, employers may unknowingly rely on misleading performance metrics if they only account for employees' required task performance (i.e. in-role behaviors) whilst omitting employees' discretionary contributions to their organization (i.e. extra-role behaviors). In the context of OCB-related research, task performance is generally characterized as the measurement of those behaviors and tasks that are considered the "technical core of an organization" and

are explicitly specified in a formal job description (Williams & Anderson, 1991).

Researching OCB as a form of extra-role behavior may therefore provide us with insights to better recognize and incentivize employee efforts that go beyond expectations. Insights from such findings may ultimately inform organizations about the validity of their performance criteria and potentially improve the guidelines and policies that direct and reward employees for their job performance. To that end, this study was designed to examine OCB from four angles. Firstly, it will examine how OCB is linked with general performance in the organization. Secondly, it will attempt to clarify whether employees' task performance is affected by the additional responsibility of taking on OCB. Thirdly, it will demonstrate if OCB's potential task-performance effects are moderated by participants' workload. Lastly I will be analyzing the underlying links between OCB, workload and task performance by comparing how well OCBI and OCBO scores individually interact with measures of workload and task performance.

OCB conceptualization

Since its inception, more than 30 different taxonomies for OCB have been conceived of (Podasakoff et al., 2000), arguably to the point of redundancy. For instance, a meta analytic review by Lepine, Erez and Johnson (2002) compiled as many as 40 distinct measures of OCB dimensions via 133 independent OCB studies and found many of these to overlap significantly in their predictive values for OCB and organizational outcomes. Williams and Anderson (1991) on the other hand provided a broader and more clear-cut OCB distinction by defining OCB in terms of behaviors that primarily benefits an organization (OCBO) as opposed to interpersonal and prosocial OCB (OCBI) that mainly stand to benefit other individuals within an organization. Both dimensions are known to

enhance organizations' performance (Podsakoff et al., 2000) yet compared to OCBO, OCBI does so rather indirectly by supporting other individuals' performance in the organization. It should be noted that while OCBI and OCBO are considered distinct enough to warrant individual labeling they are in fact considered core components of OCB as a singular concept. However, this overarching OCB denomination may prove controversial to some as researchers continue to uncover distinct or even opposing effects within the OCBI/OCBO framework. For example, a study by Wahyu (2013) demonstrated how OCBI and OCBO were associated more strongly with either affective or cognitive processes respectively. The authors remarked that OCBO was more strongly linked with job cognitions such as perceived fairness and job recognition whereas OCBI had more positive links to job affect such as empathy and concern for others. The authors therefore argued that OCBI, to some extent, represent an "expression of emotional behavior" whereas OCBO result from a comparatively more rational, cognitive process. Similarly, Lee and Allen (2002) found that work-related affect correlated significantly more with OCBI than OCBO and that work-related cognitions determined participants' likelihood of performing OCBO more so than OCBI.

OCBI & OCBO as social exchanges

Social exchange theory had a substantial influence on OCB in its infancy and its guiding principles dictate that behavior is driven from a cost/benefit analysis that essentially conditions behavior on self-interest. According to this theory, behaviors are exchanged on the contingency that they will be reciprocated to ultimately benefit the perpetrators' self-interests (Cook, 2015). In accordance with those principles, social exchange theory conceptualizes work place behavior as a form of transaction between

two interdependent parties where behaviors (such as OCB) are driven by the expectation that they will be reciprocated or otherwise pay off (Cropanzano & Mitchell, 2005).

Implicit to this theory, behaviors can therefore be said to derive from a cognitive cost-appraisal of their outcome. This theoretical perspective aligns quite well with the findings by Wahyu (2013) where cognitive processes drove employees' OCBO but it is less consistent with said cognitions' weak link to OCBI. These differing cognition effects illustrate how context-dependent OCB predictions are and gives us cause to question if social exchange theory is perhaps less applicable to OCBI than to OCBO. If true, this revelation may help us gain a more general understanding for the way in which behaviors in the OCB paradigm are preceding and affecting performance outcomes. If OCBO is truly more preconditioned on cognitive beliefs than OCBI is, then OCBO should, In congruence with social exchange theory, also be dissuaded more-so by factors with a high cost-to-benefit ratio and see a higher relation to positive individual-level outcomes. Yet this does not seem to be the case.

As mentioned, high levels of OCB are generally expected to increase organizations' performance (Nielsen, Hrivnak & Shaw, 2009) as well as employees' job performance (Wei, 2014). As discussed however, the more cognition-based OCBO should, in theory, be a better predictor of self-interested outcomes such as employees' job/task performance. Yet whereas OCBI and OCBO are both known to contribute positively to employees' job performance (Wei, 2014), little research exists to suggest that OCBI and OCBO are differently linked to these effects. Similarly, no consistent difference have been found in the organizational performance effects of OCBI and OCBO (Podsakoff et al., 2009). That being said, while the findings of Podsakoff et al. (2009) suggest that the *overall average*

OCBI and OCBO effects do not differ, it has also been illustrated that OCBI and OCBO rely on distinct processes and scholars (e.g. Ozer, 2011) have used this argument to propose that OCBI and OCBO's respective performance effects will differ if researchers would control for the the individual and organizational context in which they are measured. Making specific predictions in this area of research will remain speculative until we map out the exact mechanisms through which OCB affects performance.

An intriguing study found that general helping behaviors benefit organizations' group-performance whilst being detrimental to employees' individual task-performance (Barnes et al., 2008). Yet somewhat counter-intuitively, OCB participation actually tends to correlate with higher employee-performance and employees who engage in OCB are generally perceived to be better workers (Donia, Johns, Raja & Ayed, 2017). One possible explanation for these findings is that OCB and performance correlate because good performers simply have a greater abundance of resources, thus making OCB affordable to them. If true however, abstaining from engaging in OCB should still result in even better performance for these individuals as they can allocate more attention to their own tasks.

Social exchange theory offers a compatible framework for these findings since it deals with *exchanges* of behaviors. I would therefore argue that self-sacrificial behaviors such as OCB prove beneficial to the individual because they maintain an equilibrium wherein the costs of OCB are off-set by others individuals' OCB, thus proving beneficial to both organization and task performance. This theory implies that OCB's task performance effects will be conditional on being performed in a OCB-reciprocating workplace whereas its organization-level results are more inherent. It can therefore be reasonably suggested that OCB's task performance effects will be less consistent than its

organization performance effects. As such, the research question arose: How does OCB affect employees' task performance relative to organizations' overall performance? To examine this, hypothesis 1 and 2 state that there is a juxtaposition of individuals' task performance and overall organization performance effects with

Hypothesis 1: *OCB is positively related to organizational performance and*

Hypothesis 2: *OCB has a positive effect on employees' task performance which is smaller than that of organizational performance.*

Moderating workload effects

Employees' well-being aside, understanding how OCBI/OCBO interacts with employees' workload is certainly relevant for understanding the context behind OCB's performance effects. Based on an expansive literature review, Aggarwal and Dhaliwal (2016) compiled OCB findings into an overarching OCB model that determined OCB to be a significant cause of role overload among employees. Yet Kumar and Rathnasekara (2019) found that OCBO and OCBI had opposing links to employees' workload. In their study, OCBO appeared to exacerbate employee-reports of work-overload while OCBI was negatively associated with work-overload. Contradicting this finding however, Eatough et al. (2011) concluded that OCBI and OCBO had no effect on workload whatsoever. These findings may be explained by a key difference in their research approach. Eatough et al. (2011) operationalized OCB to explicitly include in-role behaviors whereas Kumar and Rathnasekara (2019) did not and this distinction may explain the differing end-results in line with conclusions made by Kumar and Rathnasekara (2019). They argued that employees' are more inclined to perform OCBO because they are seen as being less distinct from the participants' required in-role

behaviors than OCBI. As such, they speculate that employees are less likely to disengage from OCBO even when interfering with their workload. This topic is not well researched but it is notable that their thesis is consistent with the diverging cognitive/affective drivers of OCBI and OCBO. Logically, if behaviors in the OCBO realm are reminiscent of an employee's work tasks then employees may consider themselves more obligated to perform OCBO than OCBI as well. Cognitively speaking, OCBO will therefore also be attributed more value than OCBI due to its closer proximity to employees' in-role tasks. Accordingly, when OCBO is referring to *extra-role behaviors*, it should be more likely to aggregate with employees' regular work and thus explain why OCBO seem to increase employees' workload. Presuming this to be true in turn implies that OCBI is displayed on a more discretionary basis than OCBO which could explain why OCBI, rather than OCBO, is deferred to accommodate for employees' work-overload.

Curiously, the link between OCB and overexertion is further complicated by a study on the performance effects of emotional exhaustion. Halbesleben and Bowler (2007) found that emotional exhaustion decreased employees' likelihood of engaging in OCBO whilst increasing their OCBI engagement. These results authenticated a very similar set of findings wherein Halbesleben and Bowler (2005) concluded that employees' emotional exhaustion were detrimental to in-role performance and OCBO scores yet positively linked with OCBI participation. This OCBI-exhaustion link was supposedly caused because emotional exhaustion can be ameliorated through the social support and relationship-building that are inherently linked with OCBI. This again further illustrates the context-dependent nature of OCB since even seemingly entangled concepts such as work-overload and emotional exhaustion can have entirely opposing links to the two

OCB dimensions. We can therefore speculate if the transition from work-overload to emotional exhaustion in fact comprises a threshold wherein divergent OCBI and OCBO effects are elicited.

To better understand these findings we may once again refer back to the previous discussion regarding OCBI and OCBO's differentiated cognitive and affective underpinnings. As OCBI has been established to be a more affect-driven group of behaviors it makes sense that an affective state such as emotional exhaustion compels people to exhibit OCBI over OCBO. In consensus with these literature findings, Halbesleben and Bowler (2007) therefore attributed their findings to the fact that OCBO is associated with more cognitive reasoning processes. As employees experience emotional exhaustion, their cognitive appraisal of OCBO related outcomes (career progression for example) become less relevant and gives way for social exchanges that may provide outcomes more relevant for their affective state (feeling validated and supported for example). In times of distress, employees may therefore detach from OCBO-related behaviors in order to engage in the more interpersonal OCBI. OCBI may indeed offer some social advantages over OCBO as OCBI components have been known to increase the prevalence of knowledge sharing among coworkers (Lin, 2008) while organization-focused efforts such as OCBO on the contrary is more likely to be perceived as being self-promotional rather than helpful among colleagues (Bolino, 1999). In the context of feeling overworked, OCBI may therefore be the favorable option because it serves as a social function that buffers emotional discomfort and gain support that mitigates the costs of helping, resulting in a lessened *overall* workload perception. Additionally, considering how OCBO's resemblance to in-role tasks appears to

exacerbate employees' work-overload, hypothesis 3 was articulated as follows.

Hypothesis 3: *OCBO will be positively linked to employees' workload more-so than OCBI.*

If OCBO causes detriment to individuals' workload one might also expect a similar effect on employees' task performance. Before venturing on to the literature's findings on this topic, it will be useful to briefly revisit the OCB definition which explicitly refers to OCB as supportive behaviors that facilitates task performance (Organ, 1990). By its very definition, it is therefore to be expected that organizations with high levels of OCB will see a return of higher task performance scores and this is generally the case indeed (Qiu et al., 2020). At face value, this seems hard to reconcile with the workload increases that was discussed in relation to OCB. So how can we explain OCB to be linked with both increases of task performance and employees' workload? This research area is surprisingly lacking despite the fact that numerous articles call for a deeper examination of OCB's individual-level outcomes (e.g. Bergeron, 2007). Since no experimental study (to my knowledge) has examined the dynamics of OCB, task performance and workload simultaneously, the following discussion will be reliant on relatively circumstantial research.

Contextual moderators

One literature review by Bergeron (2007) proposed that the OCB-task performance link would dissipate if researchers simply controlled for the additional time employees spent working. Using a resource allocation framework, the author argues that OCB essentially allocates employees' resources away from their task performance and that this diversion of employees' attention is then compensated for by an increase in their working

hours. Alternatively, OCB's outcomes may simply be enabled through improved work-practices. Several group-level outcomes of OCB have already been noted like increased efficiency (Podsakoff et al., 2009) and reduced turnover rates (Sun, Aryee & Law, 2007) and such beneficial OCB outcomes are likely to mitigate the workload increases that OCB-engaging employees would have otherwise experienced. To put this in a theoretical context, I previously discussed how social exchange theory defines relationships (working or otherwise) as an agreement of interdependence and reciprocation that is perceived to be mutually beneficial (Cook, 2015). Supporting this view, it has been found that overall OCB indeed has a stronger performance-effect when task interdependence is high within organizations (Bachran, Powell, Collins and Richey, 2006). We can deduce from this that when OCB transactions are mutually beneficial (implicit to interdependent work-relationships) then OCB-exchanges can also flow freely with lessened costs to employees' individual workload. When these behaviors or "social exchanges" are not reciprocated however, it becomes more disadvantageous to engage in OCB because the additional OCB job tasks become aggregated with employees' regular job-functions without the alleviation we would expect to see in more reciprocating work-environments. Under such conditions we should therefore expect OCB to result in an increased workload.

All together, this suggests that OCB's positive link with employees' task performance is contingent on whether or not OCB affects employees' workload in the first place. As such, the allocation of employee-resources which appears inherent to OCB, can either prove beneficial or detrimental to individuals depending on the context in which OCB is performed. The collective outcomes of OCB may in other words maintain

employees' expected workload even as they go out of their way to engage in OCB. On the other hand, this also means that organizations where OCB is less commonly displayed among their employees should expect for OCB-engaging employees to perceive an increased workload and this hypothesis resonates with the fact that OCB-engaging employees actually report higher rates of emotional exhaustion in work places where their OCB is not reciprocated (Halbesleben & Wheeler. 2011). Based on these findings I propose that OCB's task performance effects are contingent on whether OCB affects employees' workload in the first place. Thus employees' workload may determine the extent to which OCB-participation actually has a negative or positive impact on task performance. To examine this, hypothesis 4 was articulated.

Hypothesis 4: Participants' workload perceptions will moderate the link between OCB-participation and task performance so that a high workload will diminish the positive link between OCB and task performance.

Employees whose workload is unaffected by their OCB should demonstrate more positive OCB-task performance effects. In addition, if support is found for hypothesis 3 in the sense that OCBO causes detriment to workload over OCBI, then we should also expect a carryover effect wherein the OCBI/OCBO distinction will moderate the proposed OCB effects in hypothesis 4. To account for this effect, hypothesis 5 and 6 was proposed.

Hypothesis 5: OCBI will beget higher task performance effects than OCBO.

Hypothesis 6: Relative to OCBI, OCBO will exacerbate workload perceptions which in turn will diminish task performance.

Method

Procedure

This project was part of a collaborative effort to research OCB by a five-member team using 5 different research-designs. Ethical approval was applied for and approved by the ethical committee for the behavioral and social sciences faculty at Utrecht University. All questionnaire-scales were back-translated from English to Dutch by one unfamiliar individual before being translated back to English by a second individual. Participants were provided with a questionnaire link which offered a brief explanation on the purpose of the study before obtaining consent to collect all relevant user data. Participants were then informed of the criteria for being eligible to participate (must be 18 years or older and work a minimum of 24 hours in the Netherlands as part of a team). Participants were then notified that their responses will remain confidential, that they could abandon the study at any time and provided with the research team's contact details. Subsequently, questionnaires were introduced to ascertain participants' demographic data and their scores on the variables examined in this study: OCB, task performance, overall workload, perceived organization performance along with five variables examined by other members of the research team: Feedback culture, job satisfaction, group performance, task interdependence and perceived group cohesion.

Participants

The data-set consisted of 344 Participants who were voluntarily recruited through our collective professional or personal networks and were obtained via Facebook, email and Whatsapp. 157 participant-answers were removed due to insufficient completion of the questionnaire-items, leaving a total sample size of 187. Among these, participants

depicted their gender as follows: Female 101, Male = 85, Other = 1 with ages ranging from 22-67 years ($M_{\text{age}} = 39.83$ $SD = 1.207$). The participants were predominantly of Dutch nationality (172 subjects) whereas the remaining participants were from 8 distinct countries around the world. 12 subjects reported that they were employed at their organization's managing board (6.4%), 46 were in a management position (24.6%) and 124 reported to simply be employees (66.3%). The participants' industry-sectors primarily pertained to healthcare & welfare services (37 subjects), education, culture & science (32 subjects) and trades & services (27 subjects).

Materials

Four measures were used to assess the variables pertinent to this study (namely OCB, workload, task performance & organization performance) which can be found in appendix A.

OCB

Participants' OCB scores were measured with the 16 item OCB-scale by Lee and Allen (2002) which consist of 8 OCBI items and 8 OCBO items that were answered on a likert scale from 1 (Strongly agree) to 7 (Strongly disagree). Participants were instructed to rate their performance via 8 statements such as "I help others who have been absent" (OCBI) and "I offer ideas to improve the functioning of the organization" (OCBO). All items were first reverse-coded so that high scores indicated high OCB-participation and were subsequently aggregated in to a single variable to measure overall OCB which had an acceptable reliability with chronbach's $\alpha = .756$. The OCBI and OCBO items were then aggregated in to two distinct variables which had reliability scores of chronbach's $\alpha = .612$ and chronbach's $\alpha = .755$ respectively. Despite a somewhat questionable reliability

for OCBI it was found that all inter-item correlations were sufficiently positive so that no items' removal would have increased the scale's reliability.

Task performance

Participants' task performance was measured with a 5 item questionnaire on "individual work performance" by Koopmans et al., (2014). Participants were asked to reflect on their performance in the past 4 weeks and asked to rate the accuracy of statements such as "my planning was optimal" on a likert scale from 1 (strongly agree) to 7 (strongly disagree). The items were initially reverse-coded so that high scores indicated high task performance and then aggregated in to a single variable with an adequate reliability ($\alpha = 0.72$).

Organization performance:

Organizational performance was measured with a scale devised by Delaney and Huselid (1996). To reduce the questionnaire length this scale was revised to only include the five items with the highest predictive validity of employee performance as suggested by Shea, et al. (2012). This measure asked participants to evaluate their organization's performance relative to that of similar organizations with a 4 point likert scale on topics such as "ability to retain essential employees" on a scale from 1 (much better) to 4 (worse) and was found to be highly reliable ($\alpha = .804$).

Workload

Workload was measured with the univariate "Overall Workload scale" by Vidulich and Tsang (1987) wherein participants were instructed to: "please give an indication of how you perceive your overall workload" and provided with a scale of ratings from 0 (Low) to 100 (High) with 5 dividing lines in between. The simplicity of this scale made it

ideal for hindering participant-fatigue as its validity and reliability have been verified (Hill et al., 1992).

Demographics

Demographic data was obtained on participants' age, gender, nationality, seniority, tenure, education, working hours, industry-sector along with participants' rating of the effort put in to their responses. A debriefing was then given along with a reiteration of everyone's contact details. All materials were reverse-translated from English and presented in either Dutch or English.

Statistical analysis

A power analysis estimated that a sample size of approximately 150 was needed for this study. This sample size was based on a power analysis which aimed to have a power of .80 and a moderate effect-size of $d = .30$. All variables were standardized and box-plots were consulted to identify 12 outliers with $z < -2.685$. There was no indication that erroneous or random responding was at fault to warrant their removal however and cook's d was lower than 1 for all items. Lastly it was examined if participants' demographic traits had any undue influence on the scoring of each independent and dependent variable. A set of one-way ANOVAs was applied to search for significantly different outcome scores based on: gender, seniority, working-hours, tenure, age, education-level and industry-sector. It was found that female participants scored significantly higher OCBI-scores $F(2, 178) = 6.413, p = .002$ and significantly lower task performance $F(2, 178) = 3.504, p = .03$. A higher seniority was related to higher OCBO $F(2, 179) = 19.539, p < .01$ and organization-performance $F(2, 177) = 4.289, p = .01$. All other variables remained within similar ranges across the demographic groups ($p > .05$).

Results

The mean scores of each variable can be found in table 1. For hypothesis 1 a simple linear regression was used to test whether OCB was positively related to organizational performance. A scatterplot was used to depict the standardized predicted scores against the standardized residuals revealing no violation of homogeneity and linearity. The variables' normality were subsequently examined using a Shapiro-Wilks test, revealing that "OCB" was normally distributed $W(187) = .99, p = .189$ but that "organization performance" was not normally distributed $W(185) = .972, p < .01$. The data-set was nonetheless determined to be sufficiently robust due to the large sample size. Lastly, the assumption of independent errors was checked using a scatterplot of the studentized residuals. No pattern was found to suggest any violation. As seen table 2, OCB was found to have a significant effect on organization performance $F(1,183) = 5.556, p = .01$ with a negative coefficient $B = -.219$ and a modest R^2 of .029. Hypothesis 1 was therefore rejected.

Table 1

Mean Scores of all variables

Variables	Mean	SD
OCB	5.56	,52
OCBI	5.5	,57
OCBO	2,37	,71
Workload	66,04	19,95
Task performance	5.21	,99
Organization performance	2,61	,67

Table 2

Regression Analysis for OCB Predicting Organization Performance

Variable	B	95% CI (B)	Beta	t	Sig.
(Constant)	1,85	[1.39 2.31]		8,02	,00
OCB	-,21	[.036 .4]	,172	2,35	,01

Note. Predictor: OCB

Dependent Variable: Organization performance

$R^2 = .02$

Hypothesis 2 stated that OCB has a positive effect on employees' task performance which was smaller than its effect on organizational performance and was initially tested with a linear regression on OCB and task performance. A scatterplot of the standardized predicted values and the standardized residual values showed that homoscedasticity was mostly met although 5 data-points skewed the data slightly. A P-P plot showed that the residuals were fairly normally distributed and no pattern suggested any violation of the linearity assumption. Lastly, no multicollinearity violations were found ($r < .7$). OCB was not quite significantly linked with task performance $F(1,185) = 2.663, p = .1, R^2 = 0.1$ as is illustrated in table 3. The correlation values for OCB, task performance and organization performance were then calculated (see table 3) and converted in to z scores (Lee & Preacher, 2013) to compare the two performance effects. Hypothesis 2 was not supported since the OCB-organizational performance link was not significantly higher than the OCB-task performance link ($z = .48, p = .63$)

Table 3

Pairwise correlations for OCB, organization and task performance

	OCB	Org. performance	Task performance
OCB	1	-.17	.11
Org. performance	-.17	1	-.13
Task performanc	.11	-.13	1

Hypothesis 3 predicted that OCBO would contribute more to participants' workload than OCBI and was tested using multiple linear regression. The assumptions for a regression model were checked as previously and were mostly met. However a P-P plot of the model's residuals indicated that the assumption of normally distributed residuals was close to being violated. I proceeded with the analysis as no extreme outliers were found (cook's $d < 1$) and all other assumptions were met. Table 4 shows that OCBO was positively linked with workload ($B = 4.262, t = 1.968, p = .05$) yet OCBI did not have a significant effect on workload ($B = -3.878, t = 1.431, p = .154$). Correlation scores were then calculated for workload, OCBO and OCBI (see table 5) to compare the OCB-subscases' contributions to workload. The correlations were then converted to a z-score revealing a significant difference $z = -2.067, p = .03$. Hypothesis 3 was therefore supported.

Table 4

Regression analysis predicting workload from OCBI & OCBO

Variables	B	95% CI (B)	Beta	t	Sig.
(Constant)	66,488	52,470 80,507		9,357	,00
OCBI	-3,878	-1,469 ,225	,11	-1,431	,15
OCBO	4,262	8,536 ,011	,15	1,968	,05

Dependent Variable: Workload

$R^2 = .024$

Table 5

Pairwise correlations for OCBO, OCBI and workload

	OCBO	OCBI	Workload
OCBO	1	-.341	-.115
OCBI	-.341	1	-.059
Workload	-.115	-.059*	1

Hypothesis 4 predicted an interaction effect wherein an increase in workload would diminish OCB's positive effect on task performance. To test this, a multiple regression model was applied and all assumptions were checked again. It was found that the assumption of multicollinearity was violated ($p < .001$) and a centered variable was therefore computed for workload, OCB and their interaction effect. A significant negative main effect was found for workload $t = -2.47, p = .01$ yet a main effect was not quite significant for OCB ($t = 1.69, p = .09$). Moreover, no significant interaction effect was found ($t = .68, p = .49$). Hypothesis 4 was therefore rejected.

Table 6

Regression analysis for workload & OCB on task

performance

Variables	B	95% CI (B)		Beta	t	Sig.
(Constant)	5.022	4.85	5.18		59.41	,00
Workload	-,01	-,01	-,00	-,19	-2.47	,01
OCB	,27	-,04	,59	,12	1.69	,09
Workload*	,00	-,01	,02	-,08	,68	,49
OCB interaction						

Dependent Variable: Task performance

Predictors: OCB, Workload, Workload*OCB

$R^2 = .04$

Hypothesis 5 entailed that OCBI would be a better predictor of task performance than OCBO. To test this, two linear regression models were applied after ensuring that all assumptions were met as before. No significant effect on task performance was found for OCBO ($t = -1.526, p = .129$) nor OCBI ($t = 1.102, p = .272$). Since neither effect was significant, hypothesis 5 was rejected.

For hypothesis 6 it was predicted that workload would moderate OCBO's effect on task performance more so than it would moderate OCBI's effect on task performance. The assumptions of linearity, collinearity, normality and homoscedasticity were met for running two multiple regression models comparing the two interaction effects. A significant model was found for the interaction of OCBI and workload $F(2, 184) = 3.241, p = .04$ with a significant interaction effect ($t = -2.289, p = .02$) and a non-significant OCBI main effect ($t = 1.7, p = .09$) and interaction effect. A significant model was also found for OCBO and workload $F(2, 184) = 3.851, p = .02$ with a significant OCBO main effect ($t = 2.44, p = .01$) and interaction predictor $t = -2.306, p < .02$. These results are illustrated in table 7. Note that the addition of an interaction effect led to a substantial change of the OCBI and OCBO main effects depicted previously. A hierarchical regression for OCBI showed a substantial change from $B = .16$ to $B = .26$. Similar results were found for OCBO revealing a change from $B = .18$ to $B = .32$. This suggests that workload is likely to be a negative confounder on OCB's link with task performance. For ease of interpretation I then computed a nominal variable which categorized workload along 3 levels (low, moderate & high) in order to depict the interaction effects on a scatterplot as seen in figure 1 and 2. Lastly, to compare the two interaction effects, correlation scores for all variables were computed (see table 8) and converted to z scores

using an online calculator (Lee & Preacher, 2013). The analysis revealed no significant difference ($z = 1.401, p = 0,16$) and hypothesis 6 was therefore rejected.

Table 7

OCBI & OCBO main effects and workload interaction

effects predicting task performance

Variables	95% CI		Beta	t	Sig.
	B	(B)			
OCBO	,32	.06 ,59	.19	2.44	,01
OCBI	,26	,09 ,59	,08	1.7	,09
OCBO*W orkload	-,006	,00 ,00	,39	-4,18	,00
OCBI*Wo rkload	-,002	,00 ,00	-,17	-2,28	,02

Dependent Variable: Task performance

Predictors: OCBO, OCBI, OCBO*workload,
OCBI*workload

Table 8

*Pairwise correlations for OCBO & OCBI's workload interactions
and task performance*

	OCBOxWork load	OCBIxWorkl oad	Task performance
OCBOxWorkload	1	,92	-,09
OCBIxWorkload	,92	1	-,13
Task performance	-,09	-,13	1

Figure 1

Scatterplot of the interaction for OCBO & workload on task performance

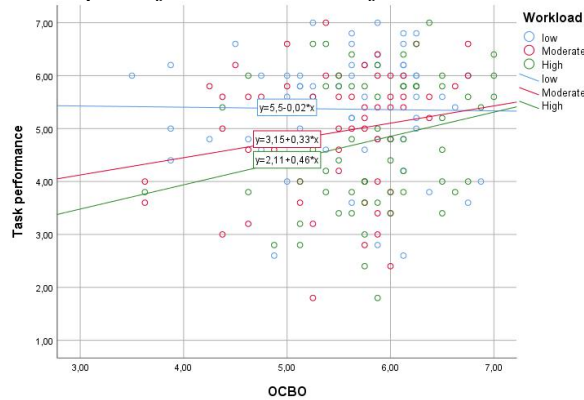
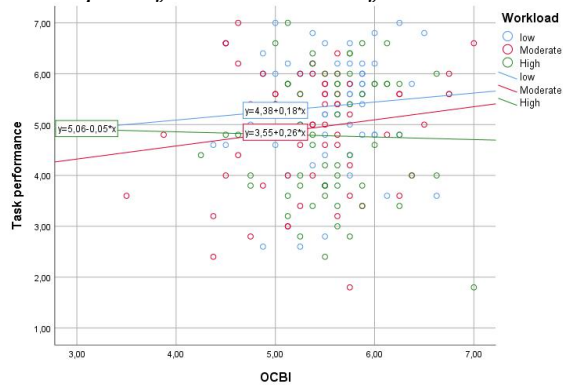


Figure 2

Scatterplot of the interaction for OCBI & workload on task performance



Discussion

The premise of this thesis argued that OCB is beneficial to individual,- and organizational-level performance through a set of mechanisms which would deem OCB's task performance benefits contingent on organizations' collective participation and reciprocation of OCB. This was in part derived from the theoretical framework of social exchange theory which conditions behavior on a perceived reciprocation. To examine the implications of this theory, it was hypothesized that OCB would positively affect both task and organization performance with the latter having a stronger link. Furthermore, it

was proposed that employees' task performance would be measurably intertwined with employees' workload so that an interaction between OCB and workload would predict whether task performance improved from OCB-participation. I further postulated that two subsets of OCB (OCBI and OCBO) by their very nature should play distinct roles in this process so that OCBO would be linked with higher workload perceptions. In extension of this argument, I then hypothesized that OCBO would also have a smaller positive link to employees' task performance than OCBI and that this could be explained due to OCBI and OCBO's differing workload associations.

The data provided support for some of my predictions although others were curiously absent. OCB was for instance found to predict *diminished* organization-performance whereas no link was found between OCB and task performance. Adding to the controversy, no significant difference in these effects were found as predicted in hypothesis 2. This is noteworthy since it contradicts a fundamental assumption of OCB, namely its facilitation of task and organizational performance, which is widely acknowledged in the literature. My findings are therefore somewhat counter-intuitive. Logically, participants' performance of OCB is unlikely to have directly reduced organizations' performance and a more feasible explanation is probably found in a third variable. One potential explanation could be that organizations with lower performance simply require more extra-role performances (such as OCB) from its employees to run properly. Presuming this to be true, we must also surmise that my findings should demonstrate a more negative OCB-workload link. This illustrates how the link between OCB and performance should be researched in the context of demonstrated OCB-outcomes (e.g. workload, organizational efficiency or turnover-reduction) that may

alter the individual-level processes from OCB to performance. Considering the subjective performance-operationalizations, it is however also plausible that the participants' perceptions inaccurately reflect their organizations' performance and that pessimistic employees engage in OCB as a means of compensating. I would therefore encourage further research to measure determine if objective and subjective performance measures causes differing OCB scores.

Regardless, my failure to find the hypothesized effects does cast doubt on the accuracy of my study's internal validity. This is particularly noteworthy since hypothesis 2 comprised of two significant main effects *in addition* to a significant difference between the two, thus leaving little room for measurement error if an effect was to be found. This must also be considered in conjunction with the subjective operationalization of task performance which reflects *perceptions* of task performance. Subjective measures are prone to higher variability than objective measures, rendering weak(er) effects less detectable and this could incidentally explain why OCB's effect on task performance fell just short of significance ($p = .1$). If however, task performance had been within the boundaries of $\alpha = .05$ (as stipulated by past evidence) it would have resulted in even less of a difference in the main effects. Accordingly, I conclude that OCB is generally similarly linked with task and organizational performance.

I should note that this hypothesis was rooted in the notion that employees' task performance would suffer from performing OCB in organizations where such efforts are not reciprocated. Hence this effect should primarily pertain to a subset of organizations where OCB is *not* the norm and the effect may therefore have been drowned out in the overall average scores. My findings therefore suggest that such an effect is a negligible

factor in most organizations however more research is still needed to understand if my findings are replicated specifically in organizations with low OCB trends.

Exemplifying these research-implications, the absence of OCB-generated performance should theoretically increase individual-level costs of OCB. Given that OCB is an “extra-role behavior” I discussed how its performance should also increase employees’ workload. Yet researchers have reached quite inconsistent conclusions regarding the OCB-workload link and these ambiguous findings have often pointed to contextual and individual-level moderators being at fault. This approach also formed the basis for hypothesis 3 which was indeed supported. I anticipated that OCBO would be more positively linked to workload than OCBI due to its closer resemblance to employees’ in-role tasks. Whereas OCBI showed no relation to workload, OCBO was in fact positively linked to participants’ workload and this distinction warrants a closer examination even though the two effects were not significantly different from one another.

The OCBO-workload link was in line with my expectations since OCBO has been known to increase workload scores in past research that measured OCB as an extra-role construct. I had similarly speculated that excluding in-role behaviors in the OCB operationalization of this study would induce a greater association between OCB and workload because it more clearly refers to behaviors distinct from ones required workload. Building on this argument, OCBO’s perceived overlap with employees’ in-role tasks should could potentially instigate an stronger impact on employees’ workload. This would align with my previous arguments regarding OCB’s context-dependent task

performance effects however it does not sufficiently explain why the extra-role efforts of OCBI had no effect on workload whatsoever.

I previously discussed how emotional exhaustion has been positively linked with OCBI, supposedly due to its alleviating effects as an interpersonal construct that is rewarded through reciprocated behaviors. This fits with OCBI's more affective roots and in relation to the OCBI-workload link we may therefore wonder if similar coping mechanisms sets in past a certain threshold of workload. It is after all conceivable that prolonged experiences of excessive workload will amount to emotional exhaustion. From this perspective, my findings align nicely with social exchange theory since it would explain the desire to perform OCBI while gaining little in terms of career-outcomes. Ironically, this potential benefit of OCBI could in theory lead to a stronger (perceived) causal link from OCBI to workload since higher stress-rates may entail higher rates of coping through OCBI. Taken to its extreme however, such an effect would entail a curvilinear relationship between OCBI and workload and this was not the case as the assumption of linearity was met for my regression analysis. Moreover, no significant effect was found in this particular study. Nonetheless, this may provide a further insight to the ambiguous OCB-workload research and I would therefore urge researchers to consider additional aspects of workload that may moderate its relation to OCB (e.g. duration or frequency) as well as outcomes identified in the literature such as fatigue, role-overload or emotional exhaustion.

Contrary to my fourth hypothesis, I found no interaction between OCB and workload as predictors of task performance. This particular research-area is currently absent from the literature and I therefore simply reasoned that a high workload should be

detrimental to employees' task performance. If we were to manipulate workload in a controlled setting, barring all other factors from interference, we would arguably observe a detrimental task performance effect. Consequently, a high workload should also mitigate OCB's (supposedly) positive effect on task performance. My data provides a partial indication that this reasoning is ecologically valid since a significantly negative main effect was in fact found between workload and task performance. However the question remains why this did not amount to a significant interaction effect between OCB and workload. To interpret my results I will therefore refer back to my discussion on OCB's relation to workload, namely OCBO's positive link with workload (as opposed to OCBI). Since workload diminished task performance, OCBO's positive link with workload should also (as a mediated effect) cause lessened task performance and thereby effectively lead to an interaction effect just as predicted in hypothesis 6. My failure to find this effect may therefore be due to OCBI's non-significant link with workload. If supported, this would imply that employees' workload primarily influences the link between *OCBO* and task performance, rather than OCBI.

However the results of hypothesis 5 and 6 seem to contradict this theory. When analyzed separately, neither OCBI nor OCBO had a significant impact on task performance and their individual workload interactions did not differ significantly from one another. This means that contrary to my hypotheses, the negative OCBO-workload link did not worsen employees' workload (an in extension their task performance) more than OCBI. The question remained why both OCB dimensions were found to have comparable interaction effects even though only OCBO significantly affected workload

and why neither dimension were linked with task performance in my *simple* regression models.

To understand this I should point out that OCBO showed a main effect (while OCBI fell just short at $p = .09$) when using a hierarchical regression model of the OCBI,- and OCBO-workload interaction as task performance predictors. This tells us that workload may have acted as a hidden negative confounder when analyzing the OCB, OCBI and OCBO-task performance links in isolation. The scatterplots in figure 1 and 2 provides further clues as to how the variables are linked. Broadly speaking, the regression lines seem to indicate that high workload ratings associate with lower task performance. However the graph also illustrates a quite clear pattern wherein OCB tends to increase task performance. This is not surprising in itself given the extensive literature documenting such effects. More interestingly, this supports my claim that workload seem to moderate the OCBI and OCBO dimensions quite differently. Indeed, OCBO-engaging employees primarily saw a performance return if they were experiencing a moderate to high workload and this is noteworthy since I expected that OCBO would have interfered with individuals' performance due to its more obligatory in-role resemblance. This is an unexplored research-venue, however it is possible that the high workload measure is confounded by a cohort of high performers in general. A higher drive to perform could arguably be linked with higher OCBO-participation and such data-points might therefore reflect a correlational, rather than a causal relationship. This could also explain why employees experiencing a low workload saw no benefit from their OCBO. Alternatively, it is possible that OCBO propels organizations success to the point that their collective employees' also succeed more individually. To determine this, an in depth study is

required to assess the general organization-characteristics in relation to OCB. For OCBI, a contrasting pattern emerged. In fact, it seems that employees with a *high* workload are the ones who do not gain performance benefit from OCBI. If OCBI is indeed a coping mechanism for exhaustion, then it is possible that the higher OCBI-scoring participants was contaminated by particularly overworked employees. It would be interesting to examine how these respondents measure on factors related to excessive workload. At any rate, my analysis indicates that OCB's task performance effects indeed fluctuate according to employees' workload although the complexity of these links require further research to be fully understood. This is a useful insight that could potentially uncover how OCBI and OCBO each relate to established OCB outcomes. Altogether, these findings are an indication that OCBI and OCBO might be linked to workload (and in turn task performance) through distinctive processes even when appearing to have similar outcomes. Notably, this theory would also hold up with the differing cognition/affect associations of OCBI/OCBO and could potentially explain the literature's inconsistent findings regarding OCB's relation to workload.

Conclusion

This thesis should ultimately be read as a preliminary study on the context-dependent nature of OCB-outcomes. While OCB is known to predict a variety of desirable organization outcomes little is still known about the underlying processes driving its supposed performance results for individual employees. To understand the OCB-performance link, I therefore propose that more research be diverted towards examining potential feedback loops between OCB and its performance-facilitating

outcomes. I have illustrated this need by using employees' workload as a reflection of the various OCB-outcomes that may facilitate the OCB-performance link.

This study provides evidence that workload indeed is a significant factor in relation to how OCB operates. Not only do employees' workload affect the quality of their task performance, but it also determines whether OCB actually improves employees' task performance. We can infer that OCB does not simply predict task performance based on a unidirectional process but that it is a subject to interactive mechanisms which have yet to be mapped out. This opens up an avenue for researchers to identify which OCB-outcomes are particularly relevant for individual employees' performance, how OCB-reciprocation affects these outcomes and how varying levels of workload will moderate these effects.

Crucially, my results were only observable when analyzing OCBI and OCBO as separate constructs, indicating that these dimensions instigate performance through distinct processes. My data revealed several trends indicating this to be true although I could not corroborate this beyond speculation. Additional research is therefore recommended to explore whether preconditions (e.g. cognitive or affective motivation) and moderating factors (e.g. workload intensity) can explain their divergence. Lastly, it must be noted that organizations' collective OCB-outcomes may determine how these factors facilitate individuals' performance. Understanding how all these factors interact will be an important first step towards further developing the OCB concept and to outline the processes and outcomes that drive successful organizations.

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Appendix A

OCB (OCBI items) (Lee & Allen, 2002)

To what extent do you agree with the following statements?

1. Help others who have been absent.
2. Willingly give your time to help others who have work-related problems.
3. Adjust your work schedule to accommodate other employees' requests for time off.
4. Go out of the way to make newer employees feel welcome in the work group.
5. Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.
6. Give up time to help others who have work or non-work problems.
7. Assist others with their duties.
8. Share personal property with others to help their work.

OCB (OCBO items) (Lee & Allen, 2002)

To what extent do you agree with the following statements?

1. Attend functions that are not required but that help the organizational image.
2. Keep up with developments in the organization.
3. Defend the organization when other employees criticize it.
4. Show pride when representing the organization in public.
5. Offer ideas to improve the functioning of the organization.
6. Express loyalty toward the organization.
7. Take action to protect the organization from potential problems.
8. Demonstrate concern about the image of the organization.

Task performance (Koopmans et al., 2014)

Think about the past 4 weeks and please answer to what extent you agree or disagree with the following statements:

1. I managed to plan my work so that it was done on time.
2. My planning was optimal.
3. I kept in mind the results that I had to achieve in my work.
4. I was able to separate main issues from side issues at work.
5. I was able to perform my work well with minimal time and effort.

Perceived organizational performance (Delaney & Huselid 1996)

1. How would you compare the organization's performance over the past 3 years to that of other organizations that do the same kind of work?

What about...

2. Ability to attract essential employees?
3. Ability to retain essential employees?
4. Relations between management and other employees?
5. Relations among employees in general?

Overall Workload scale (Vidulich & Tsang, 1987)

The overall workload scale presented a scale with ratings from 0 (Low) to 100 (High) with 5 dividing lines in between. Participants were then instructed as follows: Please give

an indication of how you perceive your overall workload”