

The Mediating Role of Job Crafting of Social Resources in the Relationship between Job
Autonomy, Self-Efficacy and Organizational Citizenship Behavior

Suggested running head: MEDIATING ROLE OF JOB CRAFTING OF SOCIAL
RESOURCES IN OCB

Abstract

Organizational citizenship behavior (OCB) is defined as the employees' "contributions to the maintenance and enhancement of the social and psychological context that supports task performance" (Organ, 1997). It is a relevant enhancer of individual and team satisfaction and effectiveness so it is important to analyze what aspects contribute to its development. Due to the social nature of OCB, this paper analyzed how job autonomy and self-efficacy affect it through the mediating role of job crafting of social resources. It is known that job crafting (JC) effects take time to elicit (Tims & Bakker, 2010), therefore our study design was two-waved, with a sample of 593 employees from 24 different organizations. Structural equation modeling (SEM) indicated that job autonomy (t1) predicted OCB (t2) through job crafting of social resources (t1), and that self-efficacy (t1) affected OCB (t2) through OCB (t1) and independently from job crafting of social resources. This finding suggested the importance of job crafting of social resources as a mediator for OCB when employees have enough job autonomy.

Keywords: job autonomy, self-efficacy, increasing social job resources, job crafting, OCB, two-wave, mediation, SEM

1 **The Mediating Role of Job Crafting of Social Resources in the Relationship between** 2 **Job Autonomy, Self-Efficacy and Organizational Citizenship Behavior**

3 The relevance of organizational citizenship behavior (OCB) is growing in today's
4 work context, due to a highly competitive environment where task performance is no longer
5 sufficient to ensure organizational performance (Campbell & Wiernik, 2015). OCB denotes a
6 set of behaviors that go beyond task performance and benefit the organization. More
7 specifically, it refers to the employees' "contributions to the maintenance and enhancement
8 of the social and psychological context that supports task performance" (Organ, 1997, p. 91),
9 representing a step beyond mere task performance. OCBs are voluntary and not rewarded
10 behaviors that support colleagues and benefit the organization overall (Sharma, 2016). Smith
11 et al. (1983) state that OCB is thought to "lubricate the social machinery of the organization"
12 (p. 654). We can see that there is a tacit agreement that this type of performance contains an
13 important social component. OCB is key to organizational effectiveness because it has been
14 shown to have a direct effect on other organizational outcomes, such as production quantity
15 and quality, benefits, efficiency, customer satisfaction, and performance quality (Walz &
16 Niehoff, 2000). Therefore, learning how to increase OCBs in organizations is crucial to
17 organizations' competitiveness and survival.

18 Two main antecedents of OCB are job autonomy (Krishnan et al., 2013; Park et al.,
19 2016) and self-efficacy (Chen & Kao, 2011; Cohen & Abedallah, 2015). Job autonomy
20 implies that employees have freedom, independence, and discretion to make decisions at
21 work; being granted these options by the organization will make employees inclined to
22 respond with positive behaviors (Krishnan et al., 2013). Self-efficacy enables employees to
23 know which OCBs are appropriate in specific situations and how to perform them
24 (Beauregard, 2012). Despite being two recognized antecedents of OCB, the literature
25 suggests that recent constructs in the field, such as job crafting (JC), could constitute the

1 mechanism by which its effects are elicited (Rudolph et al., 2017). In the light of the job
2 demands-resources model (JD-R model; Tims & Bakker, 2010), JC allows employees to
3 achieve a better fit with their job by adjusting their job resources and demands, by their own
4 initiative, to their capabilities and needs. This process leads them to display their best abilities
5 in performing their overall job (Irvin, 2017) and invest in it by going beyond the formal job
6 description (Theeuwes, 2016). In this case, we specifically examine the role of the social
7 component of JC, the more salient one to the social nature of OCB.

8 Therefore, in this study, we analyze the mediating role of job crafting of social
9 resources in the relationship of job autonomy and self-efficacy with OCB. Our motivation to
10 test this model has a triple origin. First, understanding better the mechanisms that lead to
11 OCB can have relevant implications for HR management. For example, it can suggest more
12 direct interventions, based on job crafting of social resources, if this is found to totally
13 mediate the relationships. Second, although some meta-analyses suggest the model proposed
14 when discussing the antecedents and outcomes of JC (e.g., Rudolph et al., 2017), there are no
15 studies that specifically conceive our model in a single design. And third, empirical evidence
16 in this field is mainly cross-sectional. As Tims and Bakker (2010) argue, JC's consequences
17 take time to develop, therefore the use of designs that consider at least two points in time in
18 JC studies is more appropriate. The authors of the mentioned meta-analysis (Rudolph et al.,
19 2017) could not include enough JC outcomes over time and argued that this issue should
20 draw the attention of future researchers. In another meta-analysis about JC, Zhang and Parker
21 (2019) categorically declared that "Existing empirical studies are predominantly cross-
22 sectional and thus cannot draw causal conclusions" (p. 17). In our study, we respond to this
23 need for considering the time perspective by examining the effects on OCB at the same time
24 (OCB (t1)) but also at a later time of data collection (OCB (t2)).

1 In this sense, the objective of our article is to better understand the mechanisms
2 operating between OCB and some of its more salient antecedents. Having in mind the alluded
3 need for studies with a temporal perspective, our main contribution lies in examining the
4 exposed relationships under the light of a potential lagged effect.

5 **Antecedents of OCB: Job Autonomy, Self-efficacy, and Increasing Social Job Resources**

6 ***Job Autonomy***

7 It is one of the most widely studied job characteristics and is often considered a
8 central element in work design models (Campion, 1988; Hackman & Oldham, 1976). Job
9 autonomy is defined as “the degree to which the job provides substantial freedom,
10 independence, and discretion to the employee in scheduling the work and in determining the
11 procedures to be used in carrying it out” (Hackman & Oldham, 1975, p. 162). The reciprocity
12 norm (Gouldner, 1960), often integrated into the social exchange theory (Blau, 1964), helps
13 to explain how job autonomy can influence OCB. According to this norm, individuals usually
14 feel inclined to respond to a positive action with another positive action in all social contexts.
15 Thus, employees who are granted freedom, independence, and discretion to make decisions at
16 work are expected to feel obliged to respond with some kind of positive behavior in the
17 workplace (Krishnan et al., 2013). This positive behavior is excellently represented by OCB,
18 which involves performing the job beyond what is expected and carrying out extra-role
19 behaviors such as helping others, staying late, or defending the organization from criticism
20 (Sharma, 2016).

21 Empirical evidence has generally confirmed the existence of this relationship, with
22 studies that find direct effects of job autonomy on OCB (Chen & Chiu, 2009; Krishnan et al.,
23 2013; Peng, 2013). However, a study by Chiu & Chen (2005) did not find a relationship
24 between job autonomy and OCB when testing their model in a sample of employees of
25 electronic companies, although they hypothesized it. When trying to understand their results,

1 they ventured that maybe a high job autonomy reduces employees' dependency on the help of
2 others and in return makes them display less OCB. Still, most articles find a positive relation,
3 and maybe Chiu and Chen (2005) obtained those results due to the particularities of their
4 sample (only electronic companies). For these reasons, we propose our first hypothesis in the
5 following way:

6 *Hypothesis 1: Job autonomy (t1) positively predicts OCB (t1).*

7 ***Self-Efficacy***

8 It "is concerned with judgments of how well one can execute courses of action
9 required to deal with prospective situations" (Bandura, 1982, p. 122). Self-efficacious
10 employees will make an effort that will probably lead them to successful outcomes, as
11 opposed to those with low self-efficacy, who are more likely to invest little effort and be less
12 successful (Stajkovic & Luthans, 1998). Self-efficacious employees are likely to know what
13 OCBs are appropriate in specific situations and how to perform these behaviors (Beauregard,
14 2012). Beauregard (2012) provides the example of an employee high in self-efficacy who
15 "may be more likely to volunteer to help co-workers with work-related problems or to attend
16 voluntary meetings, because s/he is better able to proactively plan for these activities and
17 organize the workday to accommodate them" (p. 594). Additionally, self-efficacious
18 individuals seek experiences that enhance their self-perception (Bandura, 1993), such as
19 engaging in extra-role behaviors (i.e., OCB) (Somech & Drach-Zahavy, 2000).

20 Empirical studies also tend to support this positive relationship, although with
21 limitations. Some studies found a direct effect of self-efficacy on OCB (Bogler & Somech,
22 2004; Chen & Kao, 2011; Cohen & Abedallah, 2015). On the contrary, D'Amato & Zijlstra
23 (2008) reported a negative relationship between both variables when testing their model in a
24 sample of hospital employees. They defended this finding by noting that self-efficacy is
25 individual-oriented, whereas OCB is team-oriented. However, as in the case of job autonomy,

1 we observe that the one work that contradicts the norm has a very specific sample (hospital
2 employees). Additionally, the majority of the evidence points to a positive relationship
3 between self-efficacy and OCB; therefore, we hypothesize:

4 *Hypothesis 2: Self-efficacy (t1) positively predicts OCB (t1).*

5 ***Job Crafting of Social Resources***

6 Some theoretical bases support the importance of job crafting of social resources
7 among the JC dimensions. The socially embedded perspective (Berg et al., 2010; Grant,
8 2007; Grant & Parker, 2009) argues that jobs, roles, and tasks are embedded in a social
9 structure in the workplace. This perspective suggests that interpersonal relationships in the
10 workplace are critical for JC. Sekiguchi and colleagues (2017) defend the relevance of the
11 ability to interact with others or influence others as critical in promoting JC in a socially
12 embedded workplace. Beauregard (2012) defends the importance of the social factor by
13 proposing that employees who engage in behaviors that improve the social aspect of work
14 benefit the organization overall.

15 The majority of JC conceptualizations include a social-oriented dimension, as is the
16 case of the well-known categorization by Tims et al. (2012). Based on these authors, job
17 crafting of social resources consists of reinforcing the social aspects of the job, such as asking
18 for feedback, support, and regulating interaction levels. It converts the social interactions at
19 work into a resource that can be used by the employee.

20 Focusing on Organ's definition of OCB (1997), which refers to OCB as behaviors that
21 contribute to the maintenance and enhancement of the social and psychological context that
22 supports task performance, we observe that both job crafting of social resources and OCB
23 concepts introduce the social factor. Therefore, employees who have been able to modify
24 their jobs in terms of their social boundaries, promoting feedback and support, that is, gaining
25 social resources at work (job crafting of social resources), might be more prepared to work

1 toward enhancing the social and psychological context of the job (OCB). Moreover,
2 successfully crafting a job can lead employees to positive organizational outcomes because
3 JC improves job-person fit (Bakker & Demerouti, 2007; Demerouti et al., 2015; Rudolph et
4 al., 2017). Employees who craft their jobs to fit themselves personally can use their best skills
5 to perform their job (Irvin, 2017). Those who attain resources at work are better prepared to
6 invest in their job, which makes them more likely to show behaviors not included in the
7 formal job description and engage in OCB (Theeuwes, 2016).

8 Empirical evidence seems to support this positive relationship. The meta-analysis by
9 Rudolph et al. (2017) finds a positive relationship between job crafting of social resources
10 and OCB. Seeking resources—identifiable to increasing structural and social job resources
11 (Petrou et al., 2012)—seems to be positively related to contextual performance (Demerouti et
12 al., 2015; Theeuwes, 2016). Relational crafting—equivalent to job crafting of social
13 resources (Wrzesniewski & Dutton, 2001)—appears to positively predict OCB (Shusha,
14 2014).

15 All of the above leads us to formulate the following hypotheses:

16 *Hypothesis 3:* Job crafting of social resources (t1) positively predicts OCB (t1).

17 Since it has been suggested that JC effects take time to elicit (Tims & Bakker, 2010),
18 we also test the relationship in a lagged design, that is, measuring OCB in a second time of
19 data collection (OCB (t2)), and controlling for the effect of OCB (t1) on OCB (t2). Therefore,
20 we add the following hypothesis:

21 *Hypothesis 4:* Job crafting of social resources (t1) positively predicts OCB (t2), and
22 this relationship is stronger than the one predicted by hypothesis 3.

23 **Mediator Effect of Job Crafting of Social Resources**

24 As we anticipated, job crafting of social resources could be playing a mediating role
25 between OCB and its antecedents. The JD-R model establishes that employees proactively

1 intervene and modify their jobs to adjust them to their abilities and needs (Tims & Bakker,
2 2010). For this adjustment process to take place, employees must have the autonomy to make
3 changes in their workplace, and the self-efficacy to make them believe that they can
4 implement them. On the other hand, the remodeling process advocated by the JD-R model
5 results in a higher person-job fit in which employees will be more willing to deliver and
6 perform (OCB).

7 The literature suggests that job autonomy and self-efficacy are related to JC and,
8 consequently, to job crafting of social resources. In the case of job autonomy, the sense of
9 freedom, control, and responsibility it provides makes employees strive for more control and
10 adjust their roles to their personal preferences (Sekiguchi et al., 2017; Vanbelle et al., 2017).
11 In this vein, Ghitulescu (2006) states that discretion about their work allows employees to
12 adjust job aspects to their abilities and preferences. As a corollary, the opportunity to decide
13 what and how to do the job (i.e., job autonomy) may even be a precondition for JC
14 (Wrzesniewski & Dutton, 2001). As Tims and Bakker (2010) explain, an important condition
15 for JC is that employees have sufficient control over their work to perceive that they have the
16 opportunity to fulfill their ideas or desires. In general terms, empirical evidence supports this
17 positive effect of job autonomy on JC (Li, 2015; Roczniowska & Puchalska-Kamińska, 2017;
18 Sekiguchi et al., 2017; Vanbelle et al., 2017).

19 Regarding self-efficacy, several studies have shown that it predicts proactive
20 behaviors (Morrison & Phelps, 1999; Speier & Frese, 1997; Salanova et al., 2006; Tims et al.,
21 2014). JC is considered a proactive behavior (Grant & Parker, 2009); therefore, it is plausible
22 that self-efficacy could act as its antecedent. Miraglia and colleagues (2017) argue that self-
23 efficacy is a promising antecedent of JC because when people believe themselves to be able
24 to master their job, they are more likely to redefine work tasks, activities, and also social
25 relationships (job crafting of social resources). Consequently, self-efficacious workers are

1 believed to be able to craft their jobs more than non-self-efficacious workers. Rudolph and
2 colleagues (2017) argue that self-efficacious employees are specially oriented to “growth-
3 oriented” JC dimensions, and job crafting of social resources is one of them, as opposed to,
4 for example, decreasing hindering job demands, another JC dimension in Tims et al. (2012)
5 conceptualization. Empirical evidence supports the positive relationship of self-efficacy and
6 job crafting of social resources (Kanten, 2014; Miraglia et al., 2017; Tims et al., 2014).

7 In sum, and congruent with the JD-R model assumptions, job crafting of social
8 resources may act as a mediator in the relationship between job autonomy, self-efficacy, and
9 OCB. We consider that job autonomy and self-efficacy foster OCB because they enable
10 employees to craft their jobs based on their needs and expectations, and this adjustment
11 drives them to give their best performance. In the first phase, employees’ autonomy over their
12 work allows them to engage in job crafting of social resources (Tims & Bakker, 2010).
13 Moreover, self-efficacy makes them believe they are capable of effectively performing the
14 social aspects of their job and even modifying these aspects (Miraglia et al., 2017). In a later
15 phase, job crafters are allowed to use their best skills (Irvin, 2017), and they are more willing
16 to invest in their job and go beyond the formal job description (Theeuwes, 2016). This last
17 part of the model is expected to be exerted predominantly with a lagged effect (OCB (t2)), as
18 explained earlier. Thus, we formulate our mediation hypotheses as follows:

19 *Hypothesis 5:* Job autonomy (t1) positively predicts OCB (t2) through job crafting of
20 social resources (t1).

21 *Hypothesis 6:* Self-efficacy (t1) positively predicts OCB (t2) through job crafting of
22 social resources (t1).

23 All in all, the main contribution of this study is to examine the mechanisms linking
24 OCB and its antecedents. To do so, we explore the role of job crafting of social resources as a
25 promising mediator between OCB’s antecedents and OCB through a temporal perspective as

1 suggested by recent research (Li, 2015; Miraglia et al., 2017). It has been suggested that JC
2 effects take time to elicit (Tims & Bakker, 2010), therefore it would be incongruent to
3 continue producing cross-sectional studies when part of the design implies examining JC
4 outcomes. The theoretically proposed mechanisms to link these constructs have so far been
5 tested in cross-sectional studies only; the use of time-lagged data allows for more appropriate
6 testing of causal relationships.

7 **Method**

8 **Participants and Procedure**

9 The members of the research team contacted several organizations and invited them to
10 participate in the project. Although convenience sampling was used, the team ensured a
11 heterogeneous sample by using organizations from different sectors and locations. The initial
12 contact was the CEO or the HR manager. In the first meeting, the research team explained the
13 project, objectives, time required, and procedure. Then, the organization's staff was invited to
14 participate by filling in the questionnaire voluntarily and confidentially (T1). The
15 questionnaires were administered in three alternative ways: on paper, on a tablet, or online,
16 and always during working hours. The same companies were contacted between 9 months
17 and one year later (T2) to participate in the project again. This time span pursued to reflect
18 that used by organizations to evaluate their employees. The specific workers who participated
19 in T1 were asked to do so again in T2. Codes were used to ensure anonymity and the data
20 matching of the workers' answers between the two data collection times.

21 The initial sample was composed of 1647 subjects. Of them, 593 answered again in
22 T2. This latter group constitutes the set of subjects used in this study. They belonged to 24
23 different organizations in Spain, primarily from the services sector (69.3%), with the rest
24 (30.7%) coming from the secondary sector. Small differences between the two data collection
25 times were due to missing values or changes over time. In T1, 52.8% of the participants were

1 female and 43.3% male; in T2, 53.5% were female and 45% male. In T1, 25.6% of the
2 respondents were under 35, 60.4% between 35 and 50, and 10.8% over 50; in T2, 20.9% were
3 under 35, 60.4% between 35 and 50, and 13.5% over 50. In T1, the majority of the
4 participants (63.6%) had a bachelor's degree or professional training (13.3%), with similar
5 percentages for T2 (65.3% had bachelor's degrees, 14.2% had professional training). Most of
6 the participants were mid-level technicians (31.4% in T1, 31.2% in T2), highly qualified
7 professionals (29% in T1, 32.9% in T2), administrative or auxiliary workers (11.3% in T1,
8 12% in T2), or managers (8.8% in T1, 9.1% in T2).

9 **Measures**

10 All the variables were collected in T1, except for OCB, which was collected both in
11 T1 and T2.

12 *Job autonomy* was measured using three items from the Spanish version (Bayona et
13 al., 2015) of the Work Design Questionnaire (Morgeson & Humphrey, 2006), referred to as
14 the job autonomy dimension of job characteristics. The items were scored on a 5-point Likert
15 scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item would be: "My
16 job allows me to make a lot of decisions by myself".

17 *Self-efficacy* was measured with three items from an adaptation by Djourova et al.
18 (2019) of the Psychological Capital Questionnaire by Luthans et al. (2007). The items were
19 rated on a 6-point Likert response scale, where 1 is *strongly disagree* and 6 is *strongly agree*.
20 A sample item would be: "I think I would represent my group well in meetings with
21 management".

22 *Increasing social job resources* was measured using 3 items from the Spanish version
23 of the Job Crafting Scale (Sora et al. 2018). The items were rated on a 5-point Likert scale
24 ranging from 1 (*never*) to 5 (*always*). A sample item would be: "I ask my supervisor to advise
25 and guide me".

1 *OCB* was assessed using three items from the MacKenzie et al. scale (2011), in which
2 managers had to rate their workgroups on a 7-point scale ranging from *strongly disagree* (1)
3 to *strongly agree* (7). We extracted the three items that loaded higher and converted them into
4 self-reports. A sample item would be: “I willingly share my experience, knowledge, and
5 information to improve the effectiveness of my colleagues”.

6 **Analysis**

7 First, we performed a preliminary analysis, extracting the means, standard deviations,
8 correlations, and reliability indexes. We checked for the possibility of common method bias
9 by applying Harman’s single factor test (Podsakoff et al., 2003). In this test, all items are
10 forced to a one-factor unrotated solution. If less than 50% of the variance is explained, the
11 lack of common method bias can be assumed.

12 Second, we applied a structural equation modeling technique with AMOS 26.0.0
13 software. Individual items were introduced as observed variables. Job autonomy (t1), self-
14 efficacy (t1), job crafting of social resources (t1), and OCB (t1 and t2) were introduced as
15 latent variables. In this way, we are improving the model fit and the accuracy of the results by
16 contemplating both the measurement model and the structural model (Schreiber et al., 2010).
17 To test for the specific indirect effects in the mediation and following Collier’s instructions
18 (2020), we produced confidence intervals using the Monte Carlo’s method (MacKinnon et
19 al., 2004) with 5,000 repetitions.

20 **Results**

21 Table 1 shows the means, standard deviations, Cronbach reliabilities, and correlations
22 among the variables. Most of the variables are significantly interrelated. The highest
23 correlation is between OCB (t1) and OCB (t2) ($r = .63$).

24 ----Please, insert Table 1 about here----

1 Concerning reliability measured by Cronbach's alpha, although OCB (t1) is under the
2 cutoff point suggested by Nunnally and Bernstein (1994), the rest of the alphas are
3 acceptable. In the case of OCB (t2), the index is higher. Clark and Watson (1995) argue that
4 it is not rare for researchers to consider reliabilities in the .60s and .70s to be good or
5 adequate. Harman's single factor test (Podsakoff et al., 2003) showed that a forced single
6 factor explained less than 50% of the variance ($S^2 = 30.058$), from which we can assume that
7 common method bias might not be present to a relevant degree in our study.

8 To assess the model fit, several fit indexes were used (Hu & Bentler, 1999) because
9 no specific fit index can evaluate the different aspects of the goodness of fit in an integrative
10 way. The Chi-square test (χ^2) is normally reported, although it has been considered very
11 sensitive to sample size; values close to 0 indicate a good fit. Related to this, the quotient
12 between the chi-square and degrees of freedom (χ^2/df) should be under .2. Acceptable fit is
13 also tested with the following indicators, which range from 0 to 1, with the desired value
14 shown in parentheses: root-mean-square error of approximation ($RMSEA < .06$), standardized
15 root mean square residual ($SRMR < .08$), comparative fit index (CFI), the Tucker-Lewis
16 index (TLI), the Goodness of Fit Index (GFI), and the Adjusted Goodness of Fit Index
17 (AGFI). These last five indexes should be $> .90$. The model fit was excellent, as follows: $\chi^2 =$
18 137.811 ; $\chi^2/df = 1.79$; $RMSEA = .037$; $SRMR = .035$; $CFI = .980$; $TLI = .972$; $GFI = .970$;
19 $AGFI = .954$. Three modification indexes were implemented, which consisted of covarying
20 the errors of the pairs of the same items across the two times in OCB. These modifications
21 were supported by psychometric theory (Landis et al., 2009).

22 **Figure 1** displays the model results, including the standardized coefficients and their
23 significance level. First, we found that, contrary to our expectations, job autonomy (t1) did
24 not predict OCB (t1) directly (hypothesis 1 rejected), although self-efficacy (t1) did
25 (hypothesis 2 confirmed). Hypothesis 3 was also confirmed: job crafting of social resources

1 (t1) was positively related to OCB (t1). Job crafting of social resources (t1) was also related
2 to OCB (t2), and that relationship was stronger than for OCB (t1) ($r^2_{H3} = .15 < r^2_{H4} = .18$;
3 hypothesis 4 confirmed), even when we were controlling for the effects of OCB (t1) on OCB
4 (t2).

5 ---Please, insert Figure 1 about here---

6 Regarding the mediation, all paths contemplated in our model are computed with
7 Monte Carlo's method (MacKinnon et al., 2004) and displayed in **Table 2**. Those confidence
8 intervals between the lower and the upper points that do not cut through 0 denote the
9 existence of a significant mediation. Focusing on the paths of our interest, we can see that job
10 autonomy (t1) predicted OCB (t2) through job crafting of social resources (t1) (path 1;
11 hypothesis 5 confirmed). Because there are no direct effects of job autonomy (t1) on OCB
12 (t2), we can conclude that there is support for full mediation. It is noteworthy that this effect
13 also occurs when introducing OCB (t1) in the mediation (path 3), which means that a part of
14 the effect is immediate and another part is lagged. Regarding self-efficacy (t1), it did not
15 affect OCB (t2) through job crafting of social resources (t1) (path 4; hypothesis 6 rejected),
16 although it did via OCB (t1) (path 5).

17 ---Please, insert Table 2 about here---

18 **Discussion**

19 The purpose of this study was to better understand the antecedents and sequential
20 processes that affect OCB over time. The literature shows that job autonomy and self-efficacy
21 influence OCB, but we proposed that this relationship might be partially mediated by job
22 crafting of social resources. Three main findings stem from our results: (1) Job autonomy (t1)
23 did not predict OCB (t1) directly, whereas self-efficacy (t1) did; (2) job crafting of social
24 resources (t1) had an immediate impact on OCB (t1), but a stronger lagged one on OCB (t2);

1 (3) job crafting of social resources (t1) mediated the relationship between job autonomy (t1)
2 and OCB (t2), but not the one between self-efficacy (t1) and OCB (t2).

3 According to our first hypothesis, we expected to find a direct and positive
4 relationship between job autonomy (t1) and OCB (t1). We did not find support for this
5 hypothesis. Job autonomy appears to be related to OCB in most of the previous studies (Chen
6 & Chiu, 2009; Krishnan et al., 2013; Peng, 2013), except for Chiu and Chen (2005). As we
7 commented in the introduction, when examining the effect of job characteristics on OCB in a
8 sample of employees in electronic companies, these authors found that variety and
9 significance predicted OCB, but identity, autonomy, feedback, and interdependence did not.
10 They explain that, “when employees’ job autonomy is high, it reduces their requirements and
11 opportunities for depending on the help of others and, thus, in return, they are less likely to
12 display OCB to others” (p. 535). This effect seems to be the opposite of the reciprocity norm
13 (Gouldner, 1960), upon which we hypothesized a potentially positive relationship. We argued
14 that employees who receive job autonomy from the organization would feel inclined to give
15 something in return, such as OCB. However, Chiu and Chen (2005) emphasized reciprocal
16 relations with coworkers—instead of the organization—as an important factor. In any case,
17 we cannot argue that the relationship between job autonomy and OCB is non-existent, but
18 rather it is mediated, as we will discuss later.

19 Our second hypothesis proposed a direct and positive relationship between self-
20 efficacy (t1) and OCB (t1). We found support for this hypothesis, consistently with the
21 literature (e.g., Bogler & Somech, 2004; Somech & Drach-Zahavy, 2000). It seems that self-
22 efficacious employees are better prepared to make successful efforts at work (Stajkovic &
23 Luthans, 1998) because they know more about OCBs (Beauregard, 2012) and proactively
24 seek to enhance their self-perception by engaging in extra-role behaviors (Somech & Drach-
25 Zahavy, 2000).

1 Based on our third and fourth hypotheses, we expected to find positive relationships
2 between job crafting of social resources (t1) and OCB (t1 and t2). They were supported by
3 the data. In the introduction, we elaborated on the social component that both concepts have,
4 which made us expect that they were related. Apparently, social job crafters are naturally
5 more ready to provide OCBs at work. We controlled for the effects of OCB (t1) on OCB (t2)
6 and still found a stronger link for OCB (t2), which denotes that the lagged effect is robust.
7 With that finding, we found confirmation for the notion that JC effects take time to elicit
8 (Tims & Bakker, 2010).

9 Finally, our fifth and sixth hypotheses proposed a positive and indirect effect of job
10 autonomy (t1) and self-efficacy (t1) on OCB (t2) through job crafting of social resources (t1).
11 However, we only found statistical support for the mediation path with job autonomy (t1) as
12 the antecedent. Self-efficacy (t1) does not seem to influence job crafting of social resources
13 (t1), contrary to our prior argumentation that it predicts proactive behaviors. It seems that the
14 social-related modifications that job crafting of social resources promotes are not the kind of
15 proactive behaviors that self-efficacy can foster. Perhaps it enables other behaviors that are
16 more task-oriented (e.g., other JC dimensions).

17 **Implications for Practice and Research**

18 When supervisors evaluate their employees, they holistically consider all the aspects
19 of employee performance, including those that are not specifically part of the job description
20 (Johnson, 2001; Azmi et al., 2016), in other words, OCB. In this paper, we provide some
21 insights into how to foster this aspect, which is highly valued by management. It is important
22 for organizations that want to develop more OCB to know that they can provide job
23 autonomy at the workplace and motivate employees to enhance their self-efficacy. More job
24 autonomy can be achieved through job redesign (Leverhulme & Riggarr, 2017). Self-efficacy
25 can be gained through training programs (Luthans et al., 2008) or a transformational

1 leadership style (Pillai & Williams, 2004). However, the results of this study showed us that
2 the influence of job autonomy on OCB is exerted through job crafting of social resources.
3 Therefore, managers who cannot apply job redesign strategies could try to facilitate or
4 encourage their workers to engage in job crafting of social resources.

5 Regarding the theoretical implications, our main contribution lies in deepening our
6 understanding of the sequential linkages and mechanisms involved in the effects of job
7 autonomy and self-efficacy on OCB. We opened up a path for research by pointing out that
8 job crafting of social resources works as a mediator for OCB when employees enjoy enough
9 job autonomy.

10 We would like to emphasize the need for more longitudinal research in the field of
11 organizational psychology. Although we are aware that our design is not technically
12 longitudinal because it only considers two points in time, it is a step in that direction. The fact
13 is that, despite constant agreement about the need for longitudinal studies, cross-sectional
14 data continue to prevail in organizational research (Kelloway & Francis, 2013). Cross-
15 sectional investigation raises doubts about the directionality of the results. In contrast,
16 longitudinal research not only alleviates this problem but can also reduce the influence of
17 third variables, such as leniency bias and the effect of transitory affects (Zapf et al., 1996).
18 Moreover, as a threat to consolidated paradigms in the field, Taris and Kompier (2014)
19 explain that longitudinal studies sometimes do not replicate associations that have been
20 previously established cross-sectionally. Our study also shows the need to adopt lagged
21 designs in research, because they may yield results that are in some points different from
22 previous literature. For all these reasons, we believe that longitudinal designs must guide
23 further research.

24 **Limitations and Recommendations for the Future**

1 We can highlight four limitations of this study. First, we used self-reported measures
2 for all our variables. It would be advisable to have additional measures from the supervisor or
3 other relevant informants. However, we must nuance this limitation. There are some strengths
4 in using self-reports, such as the one pointed out by Furnham and Stringfield (1998):
5 Employees are more likely to be aware of their behaviors than external observers and rate
6 more accurately their own performance. Besides, we introduced Harman's single factor test
7 (Podsakoff et al., 2003) to check for the possibility of the existence of method biases caused
8 by self-assessment.

9 Second, we did not consider other OCB-related concepts as additional outcomes, such
10 as prosocial behavior, voice, or the more generic outcome of contextual performance. It
11 would be interesting to examine whether job crafting of social resources is also important in
12 these outcomes. This approach would show to what extent the social factor is exclusively
13 relevant for OCB.

14 Third, there can be other relevant variables that function as mediators in the
15 relationship between job autonomy and self-efficacy and OCB that we did not contemplate in
16 this study. The model under examination can become more complex by adding improvements
17 to the proposed mechanisms. For example, Tims and colleagues (2015) propose a model in
18 which work engagement mediates the relationship between JC and the organizational
19 outcomes of in-role performance and OCB towards individuals. They also take into account
20 the intention to perform JC as an antecedent of JC. There is a need for integrative future
21 studies to more accurately visualize the way OCB is fostered in organizations.

22 Finally, our study falls short of being technically longitudinal. To achieve this, it
23 would have had to contemplate at least three times of data collection (Ployhart & Ward,
24 2011). In fact, the most convenient from the methodological point of view, since it was a
25 mediation, would have been to set the independent variables in t1, the mediator in t2 and the

1 dependent in t3. In this way, we would allow time for the variables to elicit their effects.
2 Given the availability of only two times, we had to limit ourselves to assessing the running of
3 time for that variable that we knew, based on the literature (Tims & Bakker, 2010), that needs
4 time to produce effects: JC. Therefore, OCB was set in a second time of data collection.
5 However, despite the fact that our study is not longitudinal, it is a step in the right direction
6 and an advance compared to if all the measures had been administered simultaneously. Future
7 research could assume the challenge of studying the relationships proposed from a fully
8 longitudinal perspective.

9

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12 Data availability statement: The datasets generated and analyzed during the current
13 study are not publicly available due to confidentiality reasons but are available from the
14 corresponding author on reasonable request.

15

16

17 Declarations:

18 Ethical statement: All authors certify that they have no affiliations with or
19 involvement in any organization or entity with any financial interest or non-financial interest
20 in the subject matter or materials discussed in this manuscript.

21 Informed consent: Informed consent was obtained from all individual participants
22 included in the study.

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Table 1

Means, standard deviations, correlations, and reliabilities of all study variables.

	M	SD	Job autonomy (t1)	Self-efficacy (t1)	Job crafting of social resources (t1)	OCB (t1)	OCB (t2)
Job autonomy (t1)	4.17	.85	.75				
Self-efficacy (t1)	4.74	.82	.25**	.80			
job crafting of social resources (t1)	3.07	.92	.12**	.11**	.77		
OCB (t1)	5.63	.90	.19**	.53**	.18**	.66	
OCB (t2)	5.60	.99	.18**	.45**	.27**	.63**	.75

Note. Cronbach's alpha reliabilities are displayed on the diagonal.

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

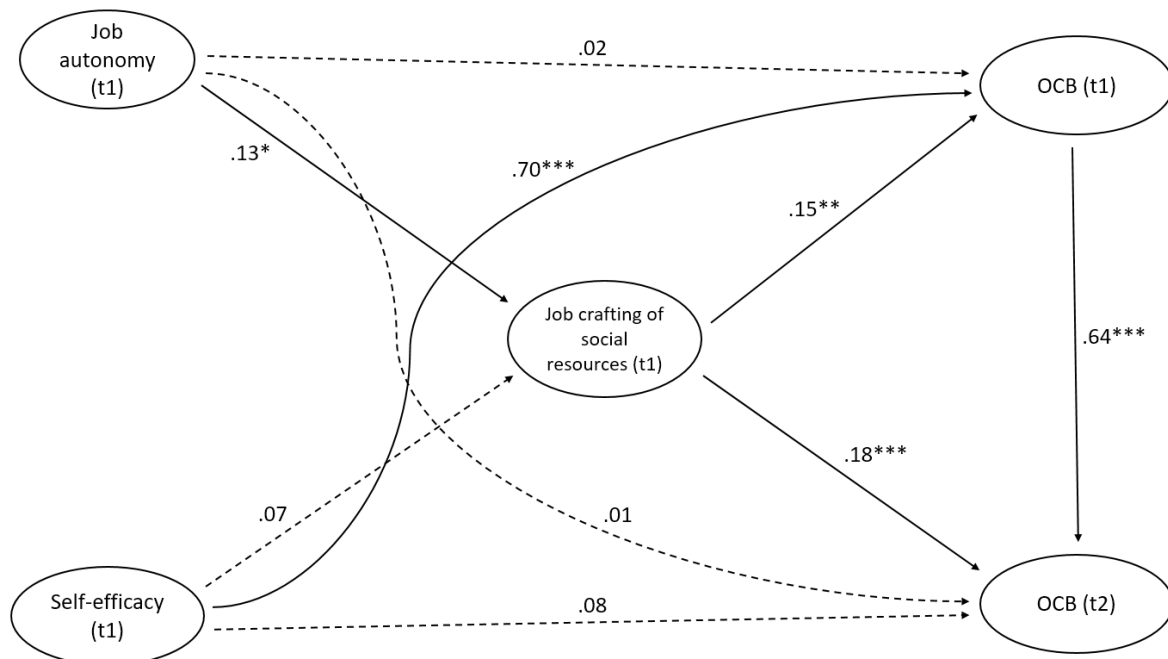


Figure 1. Results of the model. Coefficients are standardized. Dotted lines mean non-significance. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2

Monte Carlo simulation for the indirect effects (CI = 95%).

	Estimate	Lower	Upper
Path 1: Job autonomy (t1) - Job crafting of social resources (t1) - OCB (t2)	.032	.007	.070
Path 2: Job autonomy (t1) - OCB (t1) - OCB (t2)	.020	-.064	.121
Path 3: Job autonomy (t1) - Job crafting of social resources (t1) - OCB (t1) - OCB (t2)	.017	.003	.045
Path 4: Self-efficacy (t1) - Job crafting of social resources (t1) - OCB (t2)	.012	-.006	.039
Path 5: Self-efficacy (t1) - OCB (t1) - OCB (t2)	.470	.336	.666
Path 6: Self-efficacy (t1) - Job crafting of social resources (t1) - OCB (t1) - OCB (t2)	.006	-.002	.023
Path 7: Job crafting of social resources (t1) - OCB (t1) - OCB (t2)	.094	.034	.174