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Oslo, June 30th, 2022



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Victoria Helene Romberg



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Aimi Olsen

## **Abstract**

The aim of this study is to investigate if role ambiguity and role conflict contribute to counterproductive work behavior in a high-quality exchange relationship. To obtain an even deeper understanding of this context, we examined whether role ambiguity (RA) and role conflict (RC) influence counterproductive work behavior (CWB). Checking the possibility that these two variables could moderate the relationship between leader-member exchange (LMX) and CWB. The study is based on a cross-sectional design, collecting data from a quantitative self-reported survey. The survey conducted 121 employees (response rate of 40%). Analyses of data revealed a negative relationship between LMX and CWB (H1). When employees perceive high-quality LMX, they are less likely to behave in a negative manner at work, CWB.

Furthermore, analyses revealed that RA did not moderate the relationship between LMX and CWB (H2). RC did not moderate the relationship between LMX and CWB (H3). Altogether, this master thesis suggests that the ratio LMX is so strong that both RA and RC cannot contribute to CWB alone. Our findings increased our understanding of the importance of LMX construct by giving us a clear vision of the conditions under which LMX related to CWB, or even work performance. It also advances our knowledge of how strong the relationship between LMX and CWB is.

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## 1.0 Introduction

The “*psychological contract*” is a widely used concept to understand the employment relationship, understood as mutual obligations and promises in an exchange agreement between an organization and the employees that can be perceived as fulfilled or not (Guest & Conway, 2005; Rousseau, 1989, 1995; cited in Griep et al., 2020, p. 728). When organizations fail to keep promises made to employees, this often leads to a psychological contract breach that elicits feelings of anger and frustration and has deleterious effects on several attitudinal and behavioral outcomes (Griep et al., 2020, p. 728). Such deleterious behavioral outcome is considered counterproductive work behavior (CWB). CWB is volitional employee behavior contrary to the organization’s legitimate interests and threatens the well-being of the organization and its members (Robinson and Bennett, 1995; Sackett, 2002; Spector et al., 2006; cited in Griep et al., 2020, p. 728).

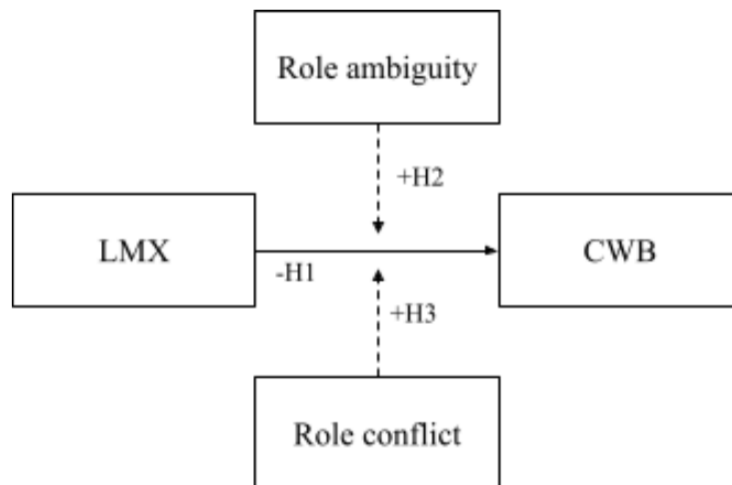
The perceived leader-member exchange relationship (LMX) is essential for how employees perceptualize their workplace. Leaders develop different quality relationships over time with their followers (Graen & Uhl-Bien, 1995), leading to essential employee outcomes (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). High-quality LMX indicates high levels of information exchange, interaction, trust, respect, support, mutual influence, and rewards. In contrast, low-quality LMX point to a low level of interaction, trust, formal relations, one-directional influence, limited support, and few rewards (Chernyak-Hai & Tziner, 2014, p. 1). LMX affect motivation, increasing or decreasing opportunities, sense of empowerment, emotional support, cooperative interactions, loyalty, respect, and obligation (Chernyak-Hai & Tziner, 2014, p. 2). Therefore, one may argue that LMX reflects the exchange relationships between employees and supervisors. Though the quality of perceived leader-member exchange is a vital source of counterproductive work behavior (Chernyak-Hai & Tziner, 2014), there is a lack of research on whether and if role ambiguity and role conflict moderates this relationship.

By addressing recommendations from research topics, we aim to improve theoretical knowledge and provide a more nuanced understanding of counterproductive work behavior, primarily related to high and low-quality LMX relationships. Counterproductive work behavior addresses a more prominent

branch of attitudinal and contextual antecedents than the feeling of violation. Based on previous findings, we expect individuals to contribute to CWB in low-quality LMX relationships, where role conflict and ambiguity exist. We, therefore, expect role conflict and role ambiguity to moderate the relationship between CWB and LMX to have a positive influence as the main contribution to our study. In short, we seek to answer the following questions: Is it a relation between counterproductive work behavior and leader-member exchange? Moreover, do role conflict and role ambiguity moderate this relationship?

### ***1.1 Research model***

In the following, our presented research model.



Model 1.0

## **2.0 Theoretical framework**

### ***2.1 Leader member exchange theory***

Leader-member-exchange theory (LMX) is an approach that examines the quality of the relationship between a leader and a follower (Yammarino, Dionne, Chun, & Dansereau, 2005; as cited in Martin et al., 2016, p. 67). Dansereau, Graen, and colleagues introduced the LMX theory in 1975, initially referred to as the vertical dyad linkage approach (Dansereau, Graen, & Haga, 1975, p. 68). The fundament of the LMX theory is that leaders differentiate in how they treat their followers through different types of exchange, leading to different quality relationships between each follower and leader (Dansereau et al., 1975). Through Vertical

Dyad Linkage research, leaders do not use an average leadership style but rather develop differentiated relationships with their followers (Graen & Uhl-Bien, 1995).

Leaders create two different vertical dyads by separating their followers into either in-groups or out-groups, depending on their compatibility with their leader (Dansereau et al., 1975). The relationship of those followers who report a “high-quality exchange” relationship or are in the in-group with their leader provides a high degree of mutual trust, respect, and obligation. In-group followers are in a more mature relationship with their leader than out-group followers and thus grow beyond their job descriptions. In contrast, it is a “low-quality exchange” relationship, or followers sorted in the out-group, characterized by low trust, low respect, and obligation. These groups are seen only to do what their job description requires, thus less willing to take on new responsibilities (Graen & Uhl-Bien, 1995). Transactional or economic components generally characterize out-group relationships.

The relationship between LMX, task, and citizenship behavior depends on the level of trust, motivation, empowerment, and job satisfaction. Research shows the most significant effect when trust exists between followers and their leader (Martin, R et al., 2016). High LMX quality relates to a range of positive follower outcomes. Examples of such outcomes are; task performance, job satisfaction (Harris, Wheeler, & Kacmar, 2009), organizational commitment, job climate, innovation, organizational citizenship behavior, empowerment, role clarity, distributive justice (Furunes, Mykletun, Einarsen, & Glasø, 2015), career progress. Further, the relationship between LMX and counterproductive performance is negative (Martin et al., 2016). High LMX quality has shown negative associations with outcomes like turnover intention (Atwater & Carmeli, 2009), reports of stress and bullying, and negative affectivity (Furunes et al., 2015).

### **3.0 Theoretical background**

#### ***3.1 Counterproductive work behavior***

Counterproductive work behavior (CWB) is *an intentional behavior of an organizational member viewed by the organization as contrary to its legitimate interests* (Sackett & De Vore, 2001, p.145; cited in Chernyak-Hai & Tziner, 2014,



p. 1). CWB are forms of extra-task behavior considered dysfunctional. CWB violates important organizational norms and harms an organization's goals, procedures, productivity, profitability, and stakeholders such as clients, co-workers, customers, and supervisors (Spector & Fox, 2005; cited in Fox et al., 2012, p. 200). Such behavior includes volitional behavior (Fox et al., 2012) such as theft, sabotage, withdrawal, harassment, and drug use.

According to Bennett and Robinson (2002; cited in Lee & Spector, 2006), the target of CWB is of importance as it may be that employees engage in different types of dysfunctional behavior. Despite the various terms referring to CWB, research divides these behaviors into two types: organizational and behavioral. Organizational CWB includes (1) production deviance, where employees withdraw efforts and, consequently, affect productivity, and (2) property deviance, which includes behavior that aims to damage organizational property. Interpersonal CWB is (1) political deviance that includes minor behavior, such as spreading rumors, while (2) personal aggression refers to abuse in a verbal context and harassment (Lee & Spector, 2006, p. 147).

Various factors that may predict CWB are individual differences in employees' traits and abilities, job experiences, work stressors in complex work conditions, harsh supervision, role ambiguity, role conflict, and interpersonal conflicts (Chernyak-Hai & Tziner, 2014). Employees' propensity to engage in negative employee behavior comes from abusive supervision, sabotage, interpersonal aggression, hostility, and complaints likely related to workplace stressors (Chernyak-Hai & Tziner, 2014).

### *3.1.1 LMX and CWB*

Frone (2000; cited in Lee & Spector, 2006) proposed that a supervisor represents an organization and that feelings toward an organization are likely to be affected when employees link an occurring conflict to a supervisor. Consequently, the latter results in organizational outcomes, such as job dissatisfaction and turnover. Interpersonal conflicts at work are among the most cited sources of stress and are positively associated with behavioral strains. Chen and Spector (1992; cited in Lee & Spector, 2006) have found conflict significantly positively correlated with sabotage, interpersonal aggression, hostility and complaints, and turnover intention. Further, conflict is positively and significantly related to both organizational and interpersonal types of CWB (Fox, Spector & Miles, 2001;

cited in Lee & Spector, 2006). According to Zellars, Tepper, and Duffy (2002; cited in Lee & Spector, 2006), employees who are victims of abusive supervision more or less restore their sense of control by withholding behavior that could benefit the organization. Further, social undermining by supervisors is predictive of passive CWB, such as taking longer breaks and being lazy at work (Duffy et al., 2002; cited in Lee & Spector, 2006). Hence, one may assume that adverse behavioral reactions to conflict with supervisors will influence the organization and negative social relationships affecting work outcomes.

CWB leads to high economic costs. Researchers have sought to understand the mechanisms that cause CWB by investigating several attitudinal (Judge et al., 2006; cited in Griep et al., 2020) and contextual antecedents (Ambrose et al., 2002; cited in Griep et al., 2020). Further, the notion of perceived psychological contract breach is a strong antecedent of violation feelings. In addition, feelings of violation are a key mediating mechanism between psychological contract breach and employees' attitudinal and behavioral reactions (Zhao et al., 2007; cited in Griep et al., 2020). Therefore, an unsymmetric exchange relationship may lead employees to rebalance the relationship with the employer by engaging in CWB. Therefore, the first contribution to this paper is that there is a positive relationship between low-quality LMX and CWB. When LMX is perceived as high-quality by both parties, LMX will have negative contributions to CWB.

***Hypothesis 1: There is a negative relationship between LMX and CWB.***

### ***3.2 The moderating role of role ambiguity***

A role is the set of behaviors that others expect of individuals in a particular context. The role may demand and assess specific behaviors that are formal or prescriptive norms, beliefs, and priorities (Floyd & Lane, 2000). Within an organizational setting, a *role* is a set of expectations applied to the incumbent of a particular position by the incumbent himself and by significant social others (role senders) within and beyond an organization's boundaries (Banton, 1965; Gross, Mason, & McEachem, 1958; Neiman & Hughes, 1951; cited in; Pandey & Kumar, 1997, p. 187). The latter indicates that the more explicit expectations are, the more likely individuals will fulfill these expectations.

Within an organizational context, a position reflects expectations regarding the position's contribution to operational tasks and objectives (Floyd & Lane, 2000). Role stressors are one of the most studied work stressors, where role stressors include role ambiguity, role conflict, and role overload (Eatough et al., 2011).

Role stressors like role ambiguity and role conflict appear as critical predictors of employee behavior. The concept of role ambiguity is when an employee feels the establishment of unclear and vague expectations concerning the employee's role. Thus, employees who experience role ambiguity presently lack the necessary information to perform their job (Floyd & Lane, 2000). Further, role ambiguity is a pure hindrance, with little challenge component. In contrast to role conflict, role ambiguity is likely to have a slightly higher challenge component as people try to bargain with the several sources of opposed work expectations to meet all demands (Eatough et al., 2011).

It is essential to mention that there is no conceptual difference between role ambiguity and role clarity (Sawyer, 1992). These two concepts can operationalize in two ways. First, role ambiguity refers to an individual who lacks enough relevant information to feel secure in the given role. Second, role ambiguity can also refer to the subjective feeling of having as much relevant information as the person would like to have, which is an operationalization of objective role ambiguity.

We are reluctant to take steps to reduce stressors and foster OCB, as employees that contribute to OCB stimulate organizational effectiveness (Eatough et al., 2011), including helping coworkers (Organ, 1997). Further, OCB includes two dimensions: altruism, or helping, and generalized compliance, a more impersonal form of conscientious citizenship (Smith et al., 1983).

The impact of role ambiguity suggests a valid construct in organizational behavior research. It is usually associated with negatively valued states such as tension, absenteeism, low satisfaction, low job involvement, low expectations, and task characteristics with low motivating potential (Jackson & Schuler, 1985, p. 17). Research also concludes that role ambiguity strongly relates to employees' reactions such as low commitment, exhaustion, and anxiety. These reactions negatively affect OCB (Eatough et al., 2011, p. 621). Further, research indicates that factors such as role ambiguity predicts CWB (Chernyak-Hai & Tziner, 2014).

Previous research determines that role ambiguity is likely to create job-related strain among employees, as stressful job demands or hindrances deplete employees' energy, tax their capacities, and decrease their work engagement (Maden-Eyiusta, 2019, p. 2830). Experiencing job-related stress makes people cope with mechanisms to manage the stress. Employees become increasingly unable or unwilling to engage with the more challenging and intangible aspects of the job (Maden-Eyiusta, 2019, p. 2832). Furthermore, when employees confront unclear role demands, they may experience negative emotions and adopt a passive coping style that may negatively influence performance outcomes as proactive behaviors through decreased engagement (Maden-Eyiusta, 2019).

The leader's influence is an essential factor in fostering particular employee behavior by either allowing or actively shaping a specific climate to emerge (Nikolova et al., 2018). Through this climate, the organization brings norms that affect employees' perceptions and responses to the work (Nikolova et al., 2018). Leaders that initiate structure provide information about expectations, which reduces role ambiguity (Jackson, 1985). Role ambiguity is highly related to interaction (Faucett et al., 2013, p. 296), and as the organizational climate shapes employees' perceptions and behaviors (Schneider et al., 2017; cited in Nikolova et al., 2018), one may consider that job insecurity moderates the relationship between LMX and OCB.

Employees who face role ambiguity are dissatisfied with their job and feel anxiety. Therefore, to deal with anxiety, they show more tendencies to engage in CWB (Kahn et al., 1964). A study revealed that employees suffering from high role ambiguity reflected elevated CWB that target the organization (Tuncer, 2019). Therefore, suffering from high role ambiguity may have milder but significant impacts on organizational effectiveness. Furthermore, Evers and Tomic (2003) revealed that role ambiguity is positively related to clergy burnout. Clergy work contexts often produce conflicts with parishioners and denominational leaders that force the clergy to confront their existential anxieties, leading to role ambiguity (Miner, 1996; cited in Faucett et al., 2013).

We suggest that the specific combination of high-quality LMX and a job insecurity climate may decrease the positive impact of sound LMX on employee OCBs because employees might view the organizational climate as inconsistent with their leader's approach. Higher levels of LMX are related to lower levels of CWB, but we know that high levels of role ambiguity stimulate CWB. Therefore,

we assume that role ambiguity weakens the contributions LMX has on CWB. Further, when role ambiguity is low, LMX will have a more substantial contribution on CWB.

***Hypothesis 2: The relation between LMX and CWB is moderated by role ambiguity. The higher the role ambiguity the less negative the relationship.***

### ***3.3 The moderating role of role conflict***

Employees have a variety of roles either inside or outside the organization, entailing a wide range of behaviors. Having different roles might cause different extreme expectations with no clear communality. Such conditions are dissensus. It can be from conflicting expectations of behavioral norms and disparate beliefs or priorities (Floyd & Lane, 2000). People's behavioral expectations or norms attached to each role become activated in response to situational cues derived from the social context and the role in the interaction (Anicicij & Hirsh, 2017).

When dissensus creates problems for individuals, it creates role conflict (Floyd & Lane, 2000). Further, it creates distress for the individual experiencing it, whatever kind of dissensus in the bottom line. Role conflict is also said to be simultaneous contradictory expectations from work colleagues that interfere with one another and make it difficult to complete work tasks (Eatough et al., 2011). In addition, role conflict occurs when an employee receives inconsistent communications regarding expectations such that meeting one expectation would preclude the fulfillment of other expectations (Maden- Eyiusta, 2019). Further, role conflict appears in situations where individuals get confronted with situations where they may be required to play a role that conflicts with their value systems or play more than one role that conflicts with each other (Pandey & Kumar, 1997).

Kahn et al. (1964) distinguished between two types of role conflict; an objective and a subjective form. The objective role conflict is said to be an actual and verifiable condition in the person's environment. In contrast, subjective role conflict is the conflict experienced by the person as an internal psychological state. From a role transition theory viewpoint, a variety of role identities and their corresponding normative expectations get demarcated by role boundaries. Within this view, role conflict happens when "various social roles expect to provide incompatible behavioral prescriptions. Further, incompatible role prescriptions

can emerge across or within distinct life domains. As an example, heightened role conflict might come from incompatible work and family expectations and incompatible expectations associated with specific organizational roles (Ancicih & Hirsh, 2017).

Conservation of resource theory (COR), developed by Hobfoll (1989), might help explain role conflict as it provides a thorough understanding of individuals' behavior in stressful situations. The theory explains that individuals' interactions and situations underline, and the fit of available resources decides to cope with these situations. Suggesting that people seek to obtain, retain, and protect resources and that stress occurs when resources are threatened with loss or lost (Hobfoll, 2002). Role conflicts place multiple and conflicting demands on employees taxing their coping resources. If resources are limited, and employees can concentrate their efforts in only one direction, they opt to reduce OCB (Eatough et al., 2011). Resource loss is central to stress experience, while resource gain becomes more salient in the face of resource loss. Because resources are the essential elements of people's stress resistance armamentarium, loss of resources leads to resource loss cycles that have increasing strength (Hobfoll, 2002).

Rizzo et al. (1970) argued that any role in the hierarchy could be associated with role conflict; however, specific roles, like managers, are likely to face conflicts more regularly because of being “caught in the middle between conflicting demands; of being superiors and subordinates.” Extensive empirical research has demonstrated that employees who engage in boundary-spanning activity, such as switching from a high-power role- a leader- to a low power role- subordinate-or vice versa, are more likely to experience role conflict (Ancicih & Hirsh, 2017).

Some studies recommend that organizations create an informal, flexible, and autonomous work environment to reduce role conflict, while others suggest that increased formalization is appropriate (Floyd & Lane, 2000). Further, organizations can reduce the role conflict experienced by newcomers using systematic socialization tactics. Where expectations get communicated by socializations rooted in an organization's current context, and over time, the expectations presented will also change (Floyd & Lane, 2000). Second, we will elaborate on the moderating role of role conflict. Role stressors such as role conflict hinder work achievements and obtain negative emotions, further reducing OCB's likelihood of performing (Eatough et al., 2011, p. 620). The hindrances

interfere with our attainment of goals; therefore, people are less likely to be emotionally and cognitively engaged at work (Maden-Eyiusta, 2019). Emotional states like tension and anxiety are negatively related to prosocial behaviors and may increase the disengagement from OCB (Eatough et al., 2011). Employees might, therefore, be more likely to behave in a CWB manner, as a study showed that role conflict would be significantly and negatively related to proactive behavior (Maden-Eyiusta, 2019).

Further, the job demands-resources (JD-R) model and its extensions explain that stressful job demands tend to produce adverse performance outcomes by disengaging employees from their work (Maden-Eyiusta, 2019). If employees feel that resources are limited, they opt to reduce OCB. In addition to prior studies, the model revealed that negative job features such as stressful job demands at work could inhibit employee creativity and proactivity at work (Maden-Eyiusta, 2019).

One may argue that the quality of LMX is related to CWB as abusive supervision is said to influence an employee's propensity to engage in harmful behaviors intended to harm and cause damage to the organization. This theory is why we chose to examine the variable job conflict instead of job tenure. When people interact with defined roles and with less conflict, the interaction becomes more predictable. Predictable interactions increase trust in the organization, leading to openness, information sharing, and learning. High trust makes relation exchanges more efficient.

In contrast, when roles are less clearly defined, the greater the stress created by role conflict, the more likely the individuals to use avoidance, lying, or organizational exit to cope with the stress (Floyd & Lane, 2000). Further, research has shown high levels of LMX to be related to positive citizenship behavior. When employees received higher LMX, they reported less CWB (Chernyak-Hai & Tziner, 2014), indicating that a low level of LMX would most likely be related to CWB.

Role conflicts reduce employees' capacity to control their work environment, induce detrimental work outcomes, and diminish performance and proactivity (Maden-Eyiusta, 2019). As role conflict obtains negative emotions and reduces the OCB, the cooperation will also decrease performance (Eatough et al., 2011). Further, role conflict may decrease individual CBW, affecting perceived

LMX. The fact that role conflict has a significant negative relationship with OCB (Eatough et al., 2011) might indicate that role conflict impacts LMX and CWB.

We assume that role conflict contributes to how LMX encounters CWB. As mentioned, higher levels of LMX are related to lower levels of CWB. However, high levels of role conflict may provide more CWB. Therefore, we assume that the higher the role conflict, the more negligible contribution LMX will have on CWB, and that role conflict weakens the influence of LMX. On the other hand, when role conflict is low, the relationship between LMX and CWB becomes stronger negative. Specifically, we hypothesized that role conflict moderates the relationship between LMX and CWB.

***Hypothesis 3: The relation between LMX and CWB is moderated by role conflict. The higher the role conflict, the less negative the relationship.***

## **4.0 Method**

### ***4.1 Procedure and sample***

During the spring of 2022, a web-based survey with self-reported questionnaires administered through the web-based tool Qualtrics got distributed to 300 employees working in both private and public sectors in Norway. Participants got informed that the survey had been approved by the Norwegian Social Science Data Services (NSD) and assured of strict confidentiality.

We received reported results in complete responses from 121 employees, corresponding to a total response rate of 40 percent. It was critical to divide our survey into two parts to reduce common method bias where the degree of CWB gets underreported. In the first survey, respondents answered questions about their relationship with their closest leader and questions regarding whether they experienced perceived role conflict and role ambiguity. A reminder email got distributed to respondents who had not responded after one week, and a second reminder after week two. A second survey about counterproductive work behavior was distributed two weeks later to the same respondents that answered the first survey. 121 of 215 respondents who completed the first survey (56 percent) completed the second survey—pairing the first survey with the second survey provided data for 121 employees.



The potential influence of non-response bias got examined by comparing the response rate of the first survey against the second survey, which implies that the impact of non-response bias among the respondents does not represent a severe threat to the present study. Furthermore, we examined the potential influence of non-response bias by comparing early and late respondents. The foundation for the comparison is the assumption that late respondents share similar response bias and respond in the same way as non-respondents (Armstrong & Overton, 1977).

To test our hypotheses, we needed respondents from employees whom all have leaders to assess their relationships. Even though participants should be able to answer the survey in their first language to prevent misunderstandings that could decrease the reliability of the results (Kahneman & Egan, 2011), English is the official work language within the respondents' firm. This thesis aims to investigate the relationship between a leader and their followers. It was essential to target organizations with a structure that involved leaders and subordinates. The participants were employees from three different organizations in Norway's public and private sectors.

Murphy (1993), Peterson (2002), and Lau, Au & Ho (2003) reported that some forms of CWB relate to young employees. Younger employees might have attitudes encouraging CWB if they work in low-paying and low-status positions. In contrast, older employees tend to be more honest (Lewicki et al., 1997) and less likely to steal or engage in production deviance (Hollinger & Clark, 1983). As previous studies report correlations between age and CWB, we assume age influences CWB in this study. Male employees engage in more aggressive behavior at work (Baron et al., 1999), theft (Hollinger & Clark, 1983), and vandalism (DeMore et al., 1988), making males more exhibit towards CWB compared to women. We may therefore argue that gender is another sociological factor influencing CWB. Employees with lower levels of education might end up in lower-paid and lower-status jobs, making education a third socio-demographic variable to influence CWB. "The longer an employee studies, the less she/he engages in work deviant behavior (Appelbaum et a., 2007; VanSandt et al., 2006; cited in Kumi, 2013, p. 2), making education a third socio-demographic variable to influence CWB.

In our study, most of the respondents were female (61,5 percent of the respondents). The subordinates' age ranged from 18 to 65, with most of the

reported ages between 18 and 25; specifically, 45,9 percent. The mean education level was a bachelor's degree; 41 percent. Thirty-three percent of respondents had a master's degree. We only controlled for the variables that significantly impacted CWB. In our study, significant control variables were age ( $r = -.185, p < .05$ ). Thus, we only controlled for this control variable in our analysis.

#### **4.2 Measures**

As Cronbach alpha ( $\alpha$ ) indicates the reliability for all variables used in the research, we aimed for measures with alpha greater than .70 as this is generally considered adequate (Cortina, 1993). All measures used in the study have an alpha greater than .70 except CWB.

Additionally, to ensure valuable and reliable responses across measures, a 5-point Likert scale ranging from 1 to 5 was used in all measures in this study. We will elaborate on all the measures used in the survey in the subsequent paragraphs.

**Leader-member exchange (LMX)** was measured using seven items based on the member versions of LMX questionnaires developed by Graen & Uhl-Bien (1995). For example, a sample item for LMX is, e.g., “Do you know where you stand with your leader?” The 5-point Likert scale ranges from 1 = “Rarely”, 5 = “Very often”. Graen & Uhl-Bien (1995, p. 236) concluded that the 7-item LMX scale “is the most appropriate and recommended measure of LMX.” Our measures of LMX reported a Cronbach alpha score of .914.

**Counterproductive work behavior (CWB)** was measured using five-items based CWB questionnaires developed by Fox (et al., 2012). A sample item for CWB is, e.g., “Started an argument with someone at work ” The 5-point Likert scale ranges from 1 = “Never”, 5 = “Every day”. Our measures of CWB reported a Cronbach alpha score of .528, indicating a measure of weak internal consistency.

**Role conflict (RC)** was measured using four-items based on role conflict questionnaires developed by Rizzo, House, and Lirtzman (1970). A sample item for role conflict is, e.g., “Do you receive contradictory instructions?” The 5-point Likert scale ranges from 1 = “Strongly disagree”, 5 “Strongly agree”. Our measures of RC reported a Cronbach alpha score of .718.

**Role ambiguity (RA)** was measured using three-items based on role ambiguity questionnaires developed by Notelaers (et.al., 2007). A sample item for role ambiguity is, e.g., “Do you know exactly what other people expect of you in

your work?” The 5-point Likert scale ranges from 1 = “Never”, 5 = “Every day”. Our measures of RA reported a Cronbach alpha score of .744.

**Control variables** was included in terms of demographic characteristics such as age, gender, highest level of education after high school, and whether the respondents have a supervisor. Control variables was measured on the employee survey with categorical response options. Age (1= 18-25, 2= 26-35, 3= 36-45, 4= 46-55, 5= 56-65), education level (1= junior high school, 2= high school, 3= bachelor, 4= master, 5= over), and gender (1= male, 2= female).

Table 1. Descriptive statistics and correlations

	7	6	5	4	3	2	1
	CWB	Role conflict	Role ambiguity	LMX	Education	Age	Gender
	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD	SD
	1.3702	2.2169	4.0744	3.7934	3.17	2.01	1.62
	.31269	.77992	.69053	.81168	.843	1.208	.487
1	-.031	-.011	-.031	-.086	.202*	-.150	
2	-.185*	-.090	.076	.173	.089		
3	-.164	-.102	.021	.178			
4	-.385**	-.410**	.511**	(.914)			
5	-.118	-.337**	(.744)				
6	.240**	(.718)					
7	(.528)						

Note. N=121. Cronbach's alpha values are reported in parentheses. \* $p < .05$ , \*\* $p < .01$ .

#### ***4.4 Research ethics***

Gaining informed consent from people being researched is a central element of the ethical conduct of research (Crow et al., 2006). Accordingly, we had several ethical considerations in mind when conducting the research. Informed consent requires that participants in the research are provided with information about the project and accessible for their decision about whether to participate (Crow et al., 2006). The survey contained a consent form, where respondents were informed about their rights and the purpose of this study. The participants also had to consent to participate voluntarily before starting the questionnaire. We also described and communicated the procedure of anonymizing respondents' information in our data analysis.

Ethical issues concern how we should treat the people and whom we conduct research. Diener and Grandall (1987) argue about four primary areas of ethical principles; where there is harm to participants, whether there is a lack of informed consent, whether there is an invasion of privacy, and whether deception is involved (Bell et al., 2018).

The project was approved by the Norwegian Centre for Research Data (NSD) in advance of the data collection process in order to ensure that we met all ethical considerations and guidelines for our research. The survey started first with respondents accepted to volunteer. No sensitive data was collected. The collection of data ensured the anonymity of the answers.

#### **5.0 Analysis and results**

The descriptive statistics and correlations for all study variables appear in table 1. The IBM SPSS statistic version 28 was used in the process of describing, explaining, and analyzing the data collected in the questionnaire. Prior to our analysis, a data screening was conducted, where we searched for incomplete data. All the flawed data points were excluded, in addition to the respondents answering that they did not have a leader.

As we sent out two surveys, we asked respondents to fill in an alias to identify the answers on survey 1 with the answers on survey 2. We then merge the results from time 1 to time 2 with a switch key. As soon as the connection was made between survey 1 and 2, the switch key was deleted. The data was treated confidentially.

First, we used a test of internal reliability, called Cronbach alpha (Bell et al., 2018). We used a rule of thumb to have a Cronbach Alpha above .70, as this is considered acceptable in most social science research. We used linear regression analysis on all our hypotheses to evaluate the linear relationship between the independent and dependent variables and account for the effect of relevant control variables. All statistical models are estimated using Ordinary Least Squares (OLS). In step 1 we included our control variables (age and education), to test the direct context between LMX and CWB. We included age, as research shows that older people are less likely to engage in CWB (Pletzer, 2021). In addition, higher education levels are linked to lower CWB for the general index (Czarnota-Bojarska, 2015). We wanted to test whether this helps to explain variation in CWB. In step 2 we included the interaction link, which is centered LMX times RA and centered LMX times RC. Step 2 is done to check the moderation of our second and third hypotheses. We used the centered scores of the predictor variables to create the interaction term to improve the interpretation of the interaction effect.

### ***5.1 Preliminary analyses***

We did a preliminary analysis of the dataset before analyzing the relationship between the dependent and the independent variable, then conducted an analysis of descriptive statistics and correlations. Table 1 presents the means (M), standard deviations (SD), correlations, and reliabilities (in parentheses) for all variables included in the research model, as well as the control variables.

Statistical control is often used in correlation with the purpose of providing more accurate estimates of relationships among variables, testing hypotheses or ruling out alternative explanations for empirical findings (Becker et al., 2016). In table 1, the unstandardized b tells us that control variables such as age and education negatively vary with LMX. When all other variables are held constant, CWB sinks when age and education increase. However, this is rarely an important finding or interesting finding as these variables are not statistically significant. Age has a p-value of .188 in step 1, and .179 in step 2. Further, education has a p-value of .356 in step 1, and .298 in step 2.

### ***5.2 Hypothesis testing***

Our first hypothesis was examined using regression analysis and suggests that there is a negative relationship between LMX and CWB. This explains that the

greater an individual relationship has to the closest leader, measured through LMX, the less occurrence of CWB. The rest of the independent variables do not seem to have a significant effect on CWB.

Looking at R-Square which measures the proportion of the variance for a dependent variable that is explained by an independent variable, or in this case, variables, in a regression model. R-Square was .187 in step 1 and .193 in step 2. As R-Square does not take variables that do not contribute significantly to the explanation into account, it will always increase. Therefore, we will also comment on Adjusted R-Square, which can fall in step two and signal that the contribution of the two variables is meaningless.

In step 1, this model had an adjusted R-Square of .152, meaning that the predictors (age, education, RA, RC and LMX) alone explain 15% of the variance in the dependent variable CWB. In step 2 the model shows the results of adding the interaction link (LMX times RA and RC). Adding these interaction linkages resulted in an adjusted R-Square of .143, showing that this model explains less of the variation in CWB than the first model, giving little initial support for the moderating hypothesis. This confirms that RA and RC do not have a significant effect on CWB.

The model F answers whether the independent variables reliably predict the dependent variable. If none of our independent variables are statistically significant, the overall F-test is also not statistically significant. To be significant at our 5% level the p-value must be less than 0.05. The only predictor that has a p-value under 0.05 is LMX. CWB is the dependent variable, and LMX has a negative and significant effect on CWB. These predictions can be seen in table 1.

Hypothesis 2 suggests that RA moderates the relationship between LMX and CWB. As shown in Table 2, in step 1 RA had a p-value of .247, and .248 in step 2. It did not provide a statistically significant result. RA does not moderate the relationship between LMX and CWB. If we look at the value of the interaction linkage, LMX times RA, the p-value is also high, .722.

Hypothesis 3 suggests that RC moderates the relationship between LMX and CWB. As seen in table 3b, the hypothesis does not provide a significant contribution as the p-value is .235 in step 1 and .294 in step 2. RC does not moderate the relationship between LMX and CWB. Looking at the interaction linkage, LMX times RC has a p-value of .408. The ratio LMX is so strong that it cannot be influenced by either RC or RA. There were no patterns of moderation in

the relationship between LMX and CWB. Thus, hypotheses two and three are not supported.

*Table 2. Regression Results Predicting Counterproductive work behavior*

Predictor variable	Step 1	Step 2
Age	-.113	-.117
Education	-.080	-.091
LMX	-.364**	-.342*
RA	.116	.116
RC	.112	.105
lmx x ra		.035
lmx x rc		-.073
Model F	5.298**	.406
Model adjusted R2	.152	.143

Note. N=121. Standardized regression coefficients are reported.

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

## 6.0 Discussion

The present study used Leader-member Exchange Theory as an overarching framework for understanding if role ambiguity and role conflict could contribute to counterproductive work behavior in a high-quality exchange relationship.

Above, we have presented the results from the self-reported survey of 121 respondents. The main topics for this discussion include an elaboration on our three hypotheses, where we will further elaborate on (1) the relationship between LMX and CWB, (2) if role ambiguity moderates this relationship, and (3) if role conflict moderates this relationship.

### 6.1 The relationship between LMX and CWB

Researchers found the quality of perceived leader-member exchange to be a vital source of counterproductive work behavior (Chernyak-Hai & Tziner, 2014), supported by our first hypothesis reporting that there is a significant negative



relationship in the relationship between LMX and CWB. Latter indicated that counterproductive work behavior reduces when a high-quality leader-member exchange relationship exists. Further, it is reasonable to assume that when a low-quality leader-member exchange relationship exists, employees are more likely to be prone to counterproductive work behavior.

### ***6.2 Role ambiguity as a moderator***

Role ambiguity and role conflict are critical predictors of employee behavior (Floyd & Lane, 2000). Thus, we sought to contribute to the existing knowledge by examining whether role ambiguity and role conflict contribute to counterproductive work behavior even though the individual employee perceived a high-quality leader-member exchange relationship.

Researchers argue that reactions connected to role ambiguity, such as low commitment, exhaustion, and anxiety, negatively affect OCB (Eatough et al., 2011, p. 621). Further, employees facing role ambiguity connect to dissatisfaction with their job and anxiety, making employees show a more frequent tendency to engage in CWB (Kahn et al., 1964). Employees confronting unclear role demands may experience negative emotions and adopt a passive coping style that negatively influences performance outcomes (Maden-Eyiusta, 2019), especially if they experience low-quality LMX. However, our analysis did not find statistically significant evidence that role ambiguity moderated the relationship between LMX and CWB. When a high-quality LMX relationship and role ambiguity exists, employees are not found to engage in CWB.

### ***6.3 Role conflict as a moderator***

Eatough et al. (2011) argued that role conflict hinders work achievements and obtains negative emotions, reducing OCB's likelihood of performing. These hindrances make employees less emotionally and cognitively engaged at work. Further, a study showed that role conflict was significant and negatively related to proactive behavior (Maden-Eyiusta, 2019). Floyd & Lane (2000) argued that more minor, clearly defined roles increase stress, making employees more likely to use avoidance, lie, or exit the organization to cope with the stress. Since role conflict has a significant negative relationship with OCB (Eatough et al., 2011), we assumed that role conflict would impact the relationship between LMX and CWB.

Role conflict correlated positively ( $r=.240$ ) with CWB and was statistically significant at a level greater than  $p < .01$ , indicating that when individuals perceive

role conflict, they are more likely to contribute to counterproductive work behavior. However, findings report that role conflict does not moderate the relationship between LMX and CWB. Therefore, our analysis does not support our last hypothesis stating that role conflict moderates the relationship between LMX and CWB.

When the leader-member exchange relationship is of high quality, role conflict, and role ambiguity will not contribute to counterproductive work behavior. Further, the finding may indicate that a high-quality LMX relationship is too strong to make employees engage in CWB, even though employees experience unclear demands and responsibilities, stress, anxiety, incompatible requirements, or are drawn in different directions. Conversely, the three independent variables may influence other phenomena than CWB. To further enlighten the reader on the context of our study, we will now discuss the most important strengths and limitations of the processes and procedures used.

## **7.0 Conclusion**

Whether the quality of the employee-manager relationship influences employee behavior at work, our study aimed to find out if low-quality LMX may cause CWB. Furthermore, the intention was to determine whether RA and RC were moderators of this relationship. Our primary finding is that Leader-member exchange (LMX) predicts a negative relationship in counterproductive work behavior (CWB). As noted, this got supported by several studies. In line with hypothesis 1, there was a negative correlation between LMX and CWB. Our results demonstrate that when employees perceive their exchange relationship with their leader as high quality, they participate to a lesser extent in counterproductive work behavior.

Further, we did not find that role conflict and role ambiguity moderates this relationship as the relations were not significant. The latter may imply that other factors moderate, affect, or influence this relationship. Further, it may imply that when role ambiguity and conflict exist, this will not lead to counterproductive work behavior alone if the individual perceives the exchange relationship with the leader as of high quality.

## **8.0 Strengths, limitations, and recommendations for future research**

One main strength of our study is its relatively high internal consistency and reliability of the well-known and widely recognized measures adopted from previous research. Consequently, the measures' high validity and reliability strengthen our study. Another strength of our analysis is the use of moderation. Moderation analyses may provide an understanding of under which conditions or for which people a variable best predicts an outcome (Hayes, 2017). Hall and Rosenthal (1991) highlight the importance of examining moderation and argue that they are at the core of scientific research. Our research can make managers aware of the importance of their relationships with employees and the concern it has. Make them more proven, speculate more, and drill into how to approach them, which may increase the search around theories and use the intrinsic and subjective experience to identify and extract more good data.

Despite its contributions, the current study has limitations worth reporting. Based on the theoretical ground, this part will elaborate on the methodological choices regarding research design, sample and procedure, data collection, measures, and data credibility. Further, an evaluation concerned with how we did our study.

As the primary goal of our research was to investigate the relationships between variables at one particular time, a quantitative approach with a cross-sectional design was the most suitable (Bell et al., 2018). Thus, we used the critical case, where we have a clear specific hypothesis and chosen case because it allows for a better understanding of the circumstances (Bell et al., 2018). As we used theory to build our hypothesis, goal, and objectives, we used a deductive approach (Saunders et al., 2007). This approach represents a standard view of the relationship between theory and research (Bell et al., 2018).

Some issues that dominated our concerns when using a cross-sectional survey study were: (1) causal inference (CI) (i.e., the ability to infer causation from observed empirical relations) and (2) common method variance (CMV) (i.e., systematic method error due to the use of a single rater or single source (Rindfleisch et al., 2008, p. 261).

The cross-sectional character of the data limits the possibility of drawing causal conclusions, which regards the causal nature of our research model.

Currently, the most existing knowledge of job insecurity and OCB (thereby, CWB) derives mostly from cross-sectional studies (Reisel et al., 2010). When the analyses are based on correlations between variables and utilize a cross-sectional design, we are unsure of the direction of the relation. Therefore, we cannot discuss the causal relationship between the variables (Bryman et al., 2018). The results are vulnerable to the opposite and bidirectional relationships because an employee's performance and satisfaction might influence the development and quality of LMX.

The quality may also be a limitation. As questions are all subjective, it can be hard to know whether they are of good quality or not. With this in mind, we tried as best as possible to ask how employees feel and why CWB may arise by conducting the survey twice within two week intervals to account for a change in emotions. In addition, this study only relies on measures at a single point in time, decreasing the validity compared to collecting data at two different times. Future research should consider longitudinal research design to address this kind of shortcoming and increase the data's validity. Alternative samples and populations should also examine possible reverse and reciprocal associations. Furthermore, it would be valuable for future research to examine the moderation effect of role ambiguity and role conflict relationship between LMX and CWB across time.

This study did not account for a combination of insights from all the different branches of LMX theory. Meaning that future studies should collect social and economic exchange relationship data from both followers and leaders to conclude the perception of the quality of the relationship (Dysvik et al., 2015).

Further, CWB reported a Cronbach`s alpha lower than 0.70, indicating low internal consistency and weak reliability. A good explanation for this is that we, unfortunately, failed to use all the items belonging to measure CWB. For future research, the 45-item CWB-C scale developed by Spector et al., (2006) could be assessed when using CWB as a variable.

Another limitation is the procedure we used to get respondents. We found our respondents by contacting companies we already knew. To increase the number of respondents, we contacted people in our own professional and personal networks. Consequently, we had little control over pairing specific dyads, which may have skewed the results in favor of younger respondents with a short relationship with their supervisor. In addition, it is worth noting that the sample was predominantly female and may not represent other working samples.

Although gender did not significantly correlate with the variables of interest, we recommend caution when generalizing these findings to a primarily male population.

Another weakness concerning how we collected data is the use of single-source (employees only) self-reported (survey-based) data. As we measure with self-reported data, we do not know if the respondent's answers reflected the respondent's behavior. Although self-reports for CWB and OCB may be minor subject to halo biases than other reports (Dalal, 2005), there still exists the possibility that some of these findings are influenced by shared biases across measures (Fox et al., 2012). For example, it could be that the relation between perceived stressors or justice and behavior was affected or influenced by other factors, such as mood, or that the direction of causality is opposite to theory. Additional research is needed to rule out such possibilities.

Another concern with self-report surveys is common method bias (Podsakoff et al., 2012), which can seriously affect findings (Podsakoff et al., 2003). A type of common method bias is social desirability, where respondents, no matter what their feelings are about a topic, try to present themselves favorably. Workers may also give a popular answer that colleagues agree with rather than a genuine opinion, which can negatively influence the study's outcome (Podsakoff et al., 2003). The instrumental variable analysis could be a solution to the problem of common method bias, and future research may use this analysis for research, for example, by doing the survey anonymously, instructing the participants that there are no right or wrong answers and changes in the response format (Podsakoff et al., 2003). Particularly, Burke et al. (1993, p. 410) argue that "self-reports of negative features of the work situation and negative affective reactions may both be influenced by negative affectivity, whereas self-reports of positive aspects of the work situation and positive affective reactions may both be influenced by positive affectivity" (as cited in Podsakoff et al., 2003). Hence, other sampling techniques should be employed to understand the results better.

The sample size regarding the number of organizations was relatively small. We struggled to get companies to agree to take the surveys due to covid 19 and stressful periods. However, we obtained significant results from our analysis, which indicates that the findings might be even more robust if tested on a larger sample. Further, the sample size is said to be the most significant factor affecting power (Dawson, 2014). The sample size is said to need to be adequate to

generalize findings and avoid sampling error or biases (Dawson, 2014); hence our goal was to get 250 respondents.

Further, when a sample is taken from a larger sample generated, it ensures a wide range of characteristics of respondents (Bell et al., 2018). In this study, the response rate is 40 percent. The response rate is significant because if this is low, it is likely to question the sample's representativeness (Bell et al., 2018). A too-small sample can be consequential as it may prevent the finding from being extrapolated (Faber & Fonseca, 2014). Thus, we do not believe that our results are due to something unique or idiosyncratic about our sample. In addition to the small sample size, generalizability is unclear. Due to the low response rate, we could not conduct a factor analysis. Therefore, we conducted linear regression. Future research may replicate the findings using a larger sample, enabling broader generalizability of the model's findings, and allowing for a more precise estimation of the strength of the effects.

A technique for reducing the possible bias in the parameter estimates by controlling for measurement error is using Structural Equation Modeling (SEM). With this approach, the model's fit can also be tested by applying a chi-square test. Further, a direction might be to explore if our findings can carry on in other organizations, industries, countries, and cultures. Lastly, as the p-value only provides one piece of information, it could be beneficial to provide additional statistical data for further research to explain the relationship between the moderation variables. The techniques that could be further explored are the size of the effect and their confidence intervals. We found statistically significant results; the added data research could provide further support to the moderating hypotheses (Smithson, 2001).

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