Exploring a model of workplace ostracism:

The value of coworker humor

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Abstract

Ostracism is a common, yet scarcely studied, phenomenon in the workplace. Thus, it is important to deepen our knowledge of the dynamics of workplace ostracism. Based on the crossover model of the conservation of resources theory (COR), we propose that coworkers ostracize individuals who potentially threaten valued resources in the workplace, namely those that who are mistreated by their supervisors (i.e., abusive supervision). In line with the buffering hypothesis of social support, we also propose that coworker humor is a useful resource to help individuals focus on the silver lining and develop spirals of positivity, reducing the impact of abusive supervision. Data were obtained from employees (abusive supervision, coworker humor and workplace ostracism) and their respective supervisors (employees' interpersonal deviance) from multiple organizations (N=518) using previously established scales. Using a bootstrapping method, we found that abusive supervision was positively related to interpersonal deviance via an increase in workplace ostracism, particularly when the use of humor by coworkers was low. This study advances our knowledge of COR theory and its application to workplace ostracism in three ways: a) we examine a crossover model involving all the members of the work unit: individual, supervisor and coworkers; b) we move beyond the broad buffering hypothesis of social support by testing one particular resource, coworker humor; and c) we offer additional explanations as to why mistreatment often leads to additional mistreatment.

Keywords: Ostracism; conservation of resources; humor; abusive supervision; deviance

Exploring a Model of Workplace Ostracism: The Value of Coworker Humor

Ostracism is most commonly defined as "being ignored and excluded, and it often occurs without excessive explanation or explicit negative attention" (Williams, 2007, p.429). It is a particularly powerful form of deviance and social exclusion due to its universal character. When someone is ostracized, even if the event takes place playing ball tossing only for a few minutes in a closed room with unknown people (Williams, 1997), over the internet (Williams, Cheung & Choi, 2000), or exchanging SMS text messages (Smith & Williams, 2004), their emotions, cognitions and behaviors are strongly affected. Its physical and psychological consequences may vary, from increased blood pressure, cortisol levels and activation of the dorsal anterior cingulate cortex (an area of brain also activated during exposure to physical pain) during the reflexive stage (i.e., during or immediately after the ostracism episode takes place) to increased incidences of relational conflicts, anger and antisocial feelings in the reflective stage (i.e., in the long-term) (for a review see Williams, 2007).

Interestingly, and while ostracism is a common phenomenon in organizations, the examination of deviance from the perspective of the target, i.e., how one perceives others to act in relation to him/herself, remains scarce compared to other frameworks concerning deviant behavior (Bennett & Robinson, 2003). One study reported that 66% of participants had been ignored by others in the previous five years, and 16.6% had experienced it quite or extremely often (Fox & Stallworth, 2005). Ferris et al.'s (2008) study provided preliminary evidence for the array of variables that are related to workplace ostracism. Other studies have also shown that the targets of ostracism display reduced affective commitment (Hitlan, Kelly, Schepman, Schneider & Zárate, 2006), trust (Jones, Carter-Sowell, Kelly & Williams, 2009) and performance (Leung,

Wu, Chen & Young, 2011; Lustenberger & Jagacinski, 2010), and increased distress (Wu, Yim, Kwan, & Zhang, 2012).

There are three main reasons that led to the present research. First, we know very little concerning the mechanisms surrounding workplace ostracism (Ferris et al., 2008), namely how and under what conditions it develops, and its consequences for organizational behavior. Second, and given the central role of supervisors in the establishment and enactment of social norms and procedures, it is important to understand how they specifically contribute to such a pervasive phenomenon. Third, due to the prevalence of ostracism in the workplace and the high price it often involves (e.g., ostracism is often accompanied by increased depressive symptoms which may lead to extended leaves of absence), the identification of potential safeguards is also warranted.

Thus, the current study aims at deepening our knowledge of the dynamics of workplace ostracism. We do so by testing a crossover model which examines abusive supervision (as perceived by the potential victim) as a determinant of negative responses towards coworkers (interpersonal deviant behaviors directed at coworkers demonstrated by the victim and reported by the supervisor), via an increase in workplace ostracism (the victim's perceptions concerning whether coworkers exclude and/or ignore him/her). Moreover, we suggest that a specific form of social support, coworker humor (the victim's perception of the use of humor by his/her coworkers), should help minimize the crossover effect of abusive supervision on ostracism, with consequences for the retaliation efforts against their coworkers. We rely on the conservation of resources theory (COR; Hobfoll, 1989) to ground our hypotheses because COR provides a parsimonious framework for the relationships we seek to establish. On the one hand, COR sees supervisors a potential source of resources and demands that affect not only the dyad but all

other relationships in the workplace, namely between coworkers. On the other hand, COR also

predicts how individuals react to the potential loss of valued resources and how they actively

seek new sources of support in order to avoid further losses.

Building on COR (Hobfoll, 1989), our study contributes to the literature on workplace

ostracism by examining two elements that have been largely ignored: the crossover effect

between peers in the same unit, and the role of coworker humor as a key form of social support

that minimizes this negative crossover effect. COR theory suggests that individuals "strive to

retain, protect, and build resources and that what is threatening to them is the potential or actual

loss of these valued resources" (Hobfoll, 1989, p. 513). However, this effort to maintain and

protect resources doesn't only take place at the intra-individual level. It also occurs at the inter-

individual level, where the stress experienced by one person affects the reactions of another

person in the same social context (Westman, 2001)

The crossover model of COR (Chen, Westman, & Hobfoll, 2015) suggests that when a

third party in our social environment is facing a significant stressor, we can experience it as a

source of stress as it may signal a threat of lack of resources, especially if that resource is valued.

The importance of leaders (and particularly direct supervisors) in the workplace is one of the key

tenets of leadership theories (Dinh et al., 2014) and the relationship one develops with his/her

supervisor is relevant regardless of the context (Rockstuhl, Dulebohn, Ang, & Shore, 2012).

Thus, developing a positive relationship with one's supervisor is among the key resources a

person can develop and hope to maintain in the workplace.

As such, and in light of the crossover model of COR, employees should strive to avoid

situations – even if they are not directly involved in them - in which their relationship with the

supervisor may be harmed. Thus, we argue that when someone perceives to be a victim of the

sustained display of hostile verbal and nonverbal behaviors, excluding physical contact, by

supervisors (i.e., abusive supervision; Tepper, 2000), his/her coworkers would distance

themselves from that person as a strategy to reduce potential resource loss, which would be

reflected in higher levels of perceived ostracism.

Moreover, the COR theory also suggests that individuals invest resources in an attempt to

reduce resource loss, recover from loss and/or gain new resources; and social support seems to

be a particularly important type of resource (Hobfoll, 1989). The buffering hypothesis of social

support (Sarafino, 1997) on abusive supervision emphasizes the relevance of coworkers, but so

far has examined broad, rather than specific, types of social support (Hobman, Restubog, Bordia

& Tang, 2009; Wu & Hu, 2009). However, the impact of social support seems to be dependent

on its value in promoting a positive sense of self and its usefulness in dealing with stressful

events (Hobfoll, 1989), which may explain the inconsistencies found in these studies.

We argue that a specific form of social support, coworker humor, can help individuals –

both the targets of abuse and those surrounding them - focus on the silver lining, even under

unfavorable working conditions, which should lead to 'gain spirals' that help individuals and

work units to be less vulnerable (Chen et al., 2015), namely to abusive supervisors. Humor

serves important social functions in groups, such as reinforcing group identify and cohesion,

social probing or testing social norms (Martin, 2007) and its implications for the workplace have

been noted almost 60 years ago (Bradney, 1957). Moreover, humor is an important coping

resource (Besser & Zeigler-Hill, 2011; Riolli & Savicki, 2010) and helps generate positive affect

within groups through a positive loop effect (Robert & Wilbanks, 2012). This should help isolate

negative behaviors that are initiated outside the group (e.g., by the supervisor), and therefore help

keep a positive work environment, where both victims of abuse and their colleagues become

more resilient (Chen et al., 2015) and less fearful of further resource loss. From a broaden-and-build perspective (Fredrickson, 1998), humor, because it promotes positive emotions, enhances individuals' identification with others and feelings of self-other overlap, leading to a positive crossover effect (Waugh & Fredrickson, 2006). However, and despite its potential for providing significant insights to management (Duncan, Smeltzer & Leap, 1990) humor has been largely overlooked in management research as it is traditionally seen as "frivolous and unproductive" (Morreall, 1991, p. 359).

Finally, we answer the call for research examining the mediating role of ostracism within interpersonal models (Ferris et al., 2008) and assess if the conditional effects of abusive supervision on workplace ostracism, depending on different levels of coworker humor, have consequences for employee interpersonal deviant behaviors directed at those that ostracized them, i.e., coworkers. Our model builds on Scott, Restubog and Zagenczyk's (2013) research on the mechanisms that explain why 'mistreatment often begets mistreatment', and advances our knowledge concerning workplace exclusion by integrating the negative norm of reciprocity (Gouldner, 1960) with the COR theory. We also extend Scott et al.'s (2013) findings by examining the reactions to a potential loss of resources due to being a victim of negative actions perpetrated by a significant and (more) powerful individual (i.e., supervisor), rather than actions perpetrated by the individual him/herself (e.g., incivility). Given the power differential between employees and supervisors, it is expected that individuals respond to abusive supervision (and the related levels of ostracism) by engaging in displaced aggressive behaviors directed at convenient and less powerful targets, such as coworkers. Figure 1 depicts our proposed model of analysis.

Conservation of Resources and Ostracism in the Workplace

COR theory defines resources as objects, characteristics, conditions or synergies that are of value to the individual (Hobfoll, 1989). An important tenet of COR is that individuals not only protect themselves from the actual loss of resources but are also motivated to avoid potential losses given the impact it has on well-being (Halbesleben et al., 2014). Ostracism appears to have a functional value as it helps protect the resources of the remaining individuals from potential threat and loss (Halbesleben, Neveu, Paustian-Underdahl & Westman, 2014).

Barner-Barry (1986) studied ostracism among children and found that all was needed was the children to perceive that the target had a high probability of causing discomfort to people close to them (i.e, putting at risk the resources of the group), and then try to avoid getting into situations that would increase the likelihood of themselves becoming targets. Eidelman and Biernat (2003) also found that when there is a demonstration that unfavorable members can bring about costs, individuals distance themselves from the entity responsible for the threat (i.e., ostracize). In the work setting, Scott et al. (2013) found that those that threaten the social order, namely by engaging in uncivil or rude actions were viewed as untrustworthy and therefore excluded from the workgroup. Taken together, these studies show that by anticipating the potential resource loss and distancing themselves from those that disrupt the social system, the group protects itself and becomes stronger and more cohesive (Gruter & Masters, 1986).

Given their proximity to employees and their responsibility to manage daily activities and establish and monitor the application of norms regarding behavior (Lewin, 1943), direct supervisors are an essential resource in the workplace. Those with high quality relationships with their supervisors tend to be more committed, perform better their tasks and be more willing to remain in their organization (Dulebohn, Bommer, Liden, Brouer & Ferris, 2012). Conversely, those with abusive supervisors tend to have higher stress and lower well-being, display more

deviant behaviors and have a stronger desire to abandon their organization (Schyns & Schilling, 2013).

Given the pervasiveness of abusive supervision, which affects between 10% and 16% of US employees and carries costs that can mount to $23.8 billion annually (Tepper, Duffy, Henle, & Lambert, 2006), and its role as an extreme social stressor (Schyns & Schilling, 2013), we believe this dimension of destructive leadership is of particular relevance for the development of workplace ostracism. Abusive supervision refers to employees' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact (Tepper, 2000). The main causes of abusive supervision can be divided into four clusters (Zhang & Bednall, 2015): supervisor related antecedents, such as fairness perceptions, leadership style and characteristics (e.g., emotional intelligence); organization related antecedents as sanctions and norms; subordinate related antecedents, such as narcissism, affect or neuroticism; and finally demographic characteristics of both supervisors and subordinates (e.g., age).

Although the causes of abusive supervision stem from both the supervisor (e.g., authoritarianism, fairness, perceived contract violation) and the subordinate (e.g., past performance, negative affectivity), researchers have consistently framed abusive supervision as displaced aggression (Tepper, 2007; Tepper, Moss & Duffy, 2011). Supervisors direct their hostility toward targets that are available and more vulnerable (i.e., subordinates), since it might not be feasible to directly retaliate against those who are the original sources of frustration.

The crossover model of COR (Chen et al., 2015) helps explain how emotions, experiences and resources (or the lack of) are passed between individuals. Although related to spillover effects (which is a within-person across-domains transmission of demands from one

area of life to another; Bakker, Demerouti & Burke, 2009), crossover effects are different

because they involve the transmission across individuals, namely closely related ones, such as

coworkers. While the former deals with the *intraindividual* transmission of stress, the latter

focuses on the *interindividual* transmission of stress (Bakker, Westman & Emmerik, 2009).

According to the crossover model (Chen et al., 2015), an individual stressor also influences the

reactions of other individuals in that same social context, even when they are not currently

suffering from that stressor. This phenomenon is known as the common stressor mechanism

(Westman, 2001). Thus, and building on the crossover model (Chen et al., 2015), we expect that

when someone is a victim of abusive supervision, his/her coworkers would strive to protect

themselves against the potential loss of that same resource (i.e., their relationship with the

supervisor), namely by distancing themselves from the target of abuse. Therefore, we predict that

employees who report higher abusive supervision are more likely to feel ostracized by their

coworkers.

> *Hypothesis 1: Abusive supervision is positively related to perceptions of workplace*
>
> *ostracism*

Coworker Humor as a Preventive Strategy of Workplace Ostracism

COR theory not only predicts that individuals are concerned with preventing resource

loss, but also that those with greater resources (e.g., social support) are less vulnerable to

resource loss (Hobfoll, 1989). The role of peers as a key structure of social support has been

described almost 40 years ago. Beehr (1976) acknowledged that peers are probably the most

beneficial source of psychological support, particularly those that share a stressful environment.

However, the examination of general forms of coworker social support as a buffer of abusive

supervision has provided mixed results. While some studies show that social support helps

reduce the impact of abusive supervision (Hobman et al., 2009), others do not find support for

that hypothesis (Wu & Hu, 2009). One possible explanation concerns the value and usefulness

attributed to social support (Hobfoll, 1989). This signals that the strength of social support varies

across situations and that specific forms of social support may be more useful in dealing with a

specific stressor but not necessarily another. Therefore, researchers should strive to examine how

specific types of social support help deal with specific stressors.

We argue that in order to reduce the crossover effect of abusive supervision, coworker

humor might be a particularly relevant source of social support for three reasons: a) crossover

effects also occur for positive experiences and states (Westman, 2001), which contribute to the

development of hardy and resilient individuals that are better equipped to deal with negative

events (Chen et al., 2015); b) its ability to create spirals of positivity, when it is a repeated

pattern rather than a single event (Robert & Wilbanks, 2012); and c) its potential to help

individuals focus on the 'silver lining' rather than dwell in one's misfortunes (Chen et al., 2015).

This reasoning assumes that we are interested in examining the potential of humor as a positive

experience. However, it is important to note that humor can be either positive or negative

(Martin, Puhlik-Doris, Larsen, Gray & Weir, 2003): it is positive when it is used in a tolerant and

non-detrimental fashion to enhance the self (self-enhancing humor) or one's relationship with

others (affiliative humor); it is negative when it is potentially harmful and injurious, either at the

expense of oneself (self-defeating humor) or others (aggressive humor). Examples of positive

humor behaviors include telling jokes to reduce tension or maintaining a humorous take when

facing adversities, while examples of negative humor include sarcasm and ridicule or saying

things at one's expense (Martin et al., 2003).

Humor in horizontal relationships, in our case between coworkers, is central for bonding since it indicates a kind of secret freemasonry, real or imagined (Bergson, 1911, cited by Rowe & Regehr, 2010). The interest in the role of humor in coworker relationships is not new, and one can trace studies on the benefits of the use of humor back to the 1950's (Bradney, 1957). For example, humor increases group cohesiveness, even if it is putdown humor, as Holdaway (1988) and Terrion and Ashforth (2002) found in two observational studies with police officers. Rowe and Regehr (2010) examined emergency service professionals, and found that the use of humor was a means of not only voicing one's feelings, but also eliciting social support from colleagues. Humor also reduces social distance by identifying similarities between individuals (Graham, 1995) and helps alleviate workplace tension (Vinton, 1989).

According to the Wheel Model of humor (Robert & Wilbanks, 2012), humorous events help develop positive affect at the individual level which, via emotional contagion, spreads to the social group and creates a climate that supports the use of humor, which helps initiate and preserve a cycle of positive affect. A key element in the Wheel Model is the ability of humor to influence group dynamics, and help shape a positive environment. Emotional contagion (Hatfield, Cacioppo & Rapson, 1994) plays an important role in this process, as the use of humor is a particularly intense event that can be easily mimicked and identified by others (Martin, 2007). This emotional contagion effect is enhanced in situations where the intervenients are friends or have high levels of familiarity with one another (Owren & Bachorowski, 2003), as is the case of workgroups.

Consequently, we predict that individual perceptions of the frequent use of humor by coworkers buffers the relationship between abusive supervision and perceived workplace ostracism. When perceived coworker humor is high, a positive crossover occurs, and individuals

become more resilient because they feel they are in a protective positive environment, thus being

more able to focus on the bright side of situations and become less permeable to the negative

actions of individuals outside the workgroup, namely supervisors. In this case, the relationship

between abusive supervision and perceived workplace ostracism should be weaker. When

perceived coworker humor is low, the unfavorableness of the context becomes more salient and

the lack of social support enhances the potential resource loss associated with supervisor abuse,

leading coworkers to distance themselves from the target of threat in order to preserve a valued

resource, i.e., the relationship with the supervisor. In this case, the relationship between abusive

supervision and perceived workplace ostracism should be stronger.

> *Hypothesis 2: Coworker humor moderates the positive relationship between abusive*
>
> *supervision and workplace ostracism, such that when perceptions of coworker humor is*
>
> *high this relationship is weaker*

Interpersonal Deviance as a Response to Ostracism

Social ostracism prevents individuals from satisfying four basic needs (Williams, 1997),

a) it deprives individuals of a sense of belongingness to others and of a positive social identity,

impairing cognitive processing and damaging positive affect; b) it threatens the targets' ability to

maintain a high self-esteem, c) it reduces the sense of control one has over its interactions with

others, both affecting self-efficacy and mental health; and finally, d) it influences one's

perception of whether life is meaningful and important, if the events occur repeatedly across

time. By feeling deprived of these needs, ostracized individuals respond accordingly.

Social exclusion is usually mentioned as one of most significant risk factors for

aggression (Leary, Twenge & Quinlivan, 2006). People who are socially excluded tend to

retaliate, by displaying aggressive behaviors toward those who excluded them as well as others

(Twenge, Baumeister, Tice & Stucke, 2001). Across two organizational samples, Ferris et al. (2008) found a positive correlation between workplace ostracism and deviant behaviors, directed both at colleagues as well as at the organization as a whole.

These results are in line with the negative norm of reciprocity (Gouldner, 1960). The negative norm of reciprocity explains how individuals keep social systems in a dynamic equilibrium: someone who is a target of negative treatment, acts in a similarly negative fashion in order to restore balance in the relationship. Moreover, these efforts to restore balance should first and foremost target the source of ostracism directly (Ferris et al., 2008), i.e., coworkers for two main reasons: a) they were the ones who ignored and excluded the individual, and people tend to directly target those who hurt their feelings (Leary, Springer, Negel, Anselli & Evans, 1998); and b) given the power differential, the potential impact of acting directly against the abusive supervisor is more harmful to employees than retaliating against coworkers (Tepper, 2007).

Thus, we argue that the interaction effect of abusive supervision and coworker humor on workplace ostracism should subsequently have consequences in terms of actions against those that employees perceive to have ostracized them, operationalized here as interpersonal deviance directed toward coworkers. Employee deviance encompasses voluntary behaviors that violate organizational norms and threaten the well-being of the organization and/or its members (Robinson & Bennett, 1995). Interpersonal deviance is a subset of those actions that have the goal of inflicting harm upon specific individuals (Aquino, Lewis & Bradfield, 1999), in our case, coworkers. This is a case of mediated-moderation (Morgan-Lopez & MacKinnon, 2006; Preacher, Rucker & Hayes, 2007). Based on the crossover model of COR and the negative norm of reciprocity, we expect that when coworker humor is low, increased levels of abusive

supervision should be related to stronger perceptions of ostracism, and consequently to higher

interpersonal deviance directed toward coworkers, than when coworker humor is high.

Hypothesis 3: The conditional indirect effect of abusive supervision on interpersonal

deviance via workplace ostracism is stronger when coworker humor is low than when it

is high

Method

Sample and Procedure

Our research team contacted 40 organizations operating in Portugal that agreed to

collaborate with our study (i.e,. providing surveys to those in managerial positions and their

subordinates). The number of dyads surveyed in each organization varied, depending not only on

the size of the organization but the availability of the workforce (as perceived by management)

to take time out to fill out the surveys. The specific individuals to be surveyed were chosen based

on their willingness to participate and their presence and availability during the data collection

period (organizations often defined which departments would participate, but made no remarks

concerning specific individuals). If both the supervisor and the subordinate independently agreed

to participate, we would then deliver the surveys and collect them by hand in a previously

established date. These were filled out individually and without any knowledge of what their

counterpart answered. We clearly stated the voluntary and confidential nature of the participation

(we had to develop a coding system that allowed us to match subordinate-supervisor pairs), and

agreed to only share aggregated results with the organizations that requested a feedback report.

We collected data from 563 employee-supervisor dyads, representing a response rate of

84%. In the current study, we analyzed data from 518 dyads, due to the removal of miscompleted

surveys. These dyads worked in 40 organizations operating in diverse sectors, including 18

organizations from the travel and food industry, 5 consultancy agencies, 5 services organizations, 3 banks, 3 construction companies, among others (e.g., education, health care, manufacturing, sales). In the final sample, 77 supervisors rated more than one employee (i.e., assessed the interpersonal deviant behaviors of more than one subordinate), while 80 supervisors rated a single subordinate.

Subordinates were on average 34.8 years old, and 51% were female. Their average tenure in the organization was 7.7 years, while the average tenure with the supervisor was 3.4 years. Employee's education was 16% less than high school, 38% high school diploma, and 46% university degree. Supervisors were on average 39.5 years old, and 42% were female. Their average tenure in the organization was 9.9 years, and their education was 3% less than high school, 19% high school diploma, and 78% university degree.

Measures

For all the scales we used 5-point Likert-type scales, ranging from 1 = strongly disagree to 5 = strongly agree. For all the measures we used previously established and validated scales, namely those most commonly used by researchers, with the exception of coworker humor, where we had to adapt an existing scale. All scales were created in Portuguese using the common translation/back translation procedures (Brislin, 1980) and followed the adaptation guidelines put forth by the International Test Commission (2005), namely making sure all items were culturally appropriate and that the surveyed population was familiar with the item format and procedures. All alphas presented refer to the current study, and as we can see all variables have a good level of internal consistency, further supporting the attentiveness of the translation process.

Abusive supervision. We measured abusive supervision with the 15 item scale developed by Tepper (2000).This scale captures instances of behavioral non-physical abuse present in the

workplace. Sample items include "My boss is rude to me" and "My boss puts me down in front of others". Cronbach's alpha was .88.

Coworker humor. To measure individual perceptions about the use of humor among coworkers, we followed the framework put forth by the Wheel Model of humor (Roberts & Wilbanks, 2012) that argues that the goal of humor is to develop positive affect and therefore excluded negative forms of humor. We adapted 4 items developed by Avolio, Howell and Sosik (1999) and created an additional item. These authors developed this scale to measure leader's use of humor, so we changed the referent to specifically address coworkers. Sample items include "My coworkers use a funny story to turn an argument in their favor" and "My coworkers make me laugh when we are too serious". We added a general item "My coworkers use humor in their daily life". Cronbach's alpha was .83.

Workplace ostracism. To measure ostracism we used Ferris et al.'s (2008) Workplace Ostracism Scale. This scale is composed of 13 items that assess the perception that one is being ignored or excluded. In order to remove any confounds as to who the perpetrator was (to make sure individuals did not think about supervisor's ostracism), and following Ferris et al.'s (2008) recommendation of differentiating the sources of ostracism, our items referred to one's perceptions of being ostracized by coworkers. Therefore, we used "my coworkers" instead of the more general "others" that Ferris et al (2008) used in the original scale. Sample items are "Sometimes, my coworkers ignore me at work" and "Sometimes, my coworkers at work shut me out of the conversation". Cronbach's alpha was .86.

Interpersonal deviance. To measure deviant behaviors toward coworkers we asked supervisors to rate their employees' interpersonal deviance, using 5 items adapted from Aquino et al., (1999) and Robinson and Bennett's (1995) scales (e.g., "This employee competes with

his/her coworkers in an unproductive way" and "This employee gossips about his/her

coworkers"). Cronbach's alpha was .77.

  Control variables. We tested whether we should include a number of control variables in

our model. First, we examined organizational size, since previous research using similar samples

(i.e., multiple organizations) has shown that organizational size often presents significant

relationships with several employee attitudes and behaviors (Pierce & Gardner, 2004; Su, Baird

& Blair, 2009). Second, we tested whether subordinate's demographic variables, such as age,

gender, tenure with the supervisor and tenure the organization also held significant relationships

with our outcome variables. Organizational size was related to interpersonal deviance (r = -.09,

p<.05) while age was related to workplace ostracism (r =.11, p<.05). The other potential control

variables held no significant relationships with our outcome variables. Therefore, and following

Becker's (2005) recommendation, we only included organizational size and subordinates' age in

our model.

Measurement Model

  To test the structure of our proposed model and the distinctiveness of our constructs, we

conducted confirmatory factor analysis (CFA). Such a discriminant validity test becomes even

more relevant given that the coworker humor scale was adapted from a scale directed at leaders

(with one additional item). We then compared our theoretical model, composed of four factors,

with three additional models. Individuals have stable predispositions that affect their behaviors,

namely aggressive behaviors (Hershcovis et al., 2007) and their own interpretation of events

(Skarlicki, Folger & Tesluk, 1999), such as abusive supervision and ostracism. In order to take a

potential general negative affectivity effect into account, we created a second model that

differentiated between three factors, one factor accounting for negative attitudes and behaviors

toward the individual, irrespective of who demonstrated that action (as they were perceived by

the individual), comprising the items of abusive supervision and ostracism; and the other two

factors (humor and interpersonal deviance) remained as in the original model.

Although we collected data from two distinct sources (subordinates and supervisors), thus

minimizing concerns about common method variance (Podsakoff, MacKenzie & Podsakoff,

2012), three of the four variables were collected from the same source. Thus, the third model

distinguished between two factors, one comprised of all the items collected from the employee

(abusive supervision, humor, and ostracism), and another for interpersonal deviance, evaluated

by the supervisor. In the fourth model, we allowed all items to load in a single factor. Since two

of the scales used in the present study (abusive supervision and ostracism) had a high number of

items, we applied a parceling technique recommended by several authors (e.g., Bagozzi &

Edwards, 1998; Hall et al., 1999) in order to reduce the potential for secondary influences and

cross-loading contamination (Hall, Snell & Foust, 1999). This technique aims at reducing the

number of indicators per latent variable, thus decreasing measurement error (Bagozzi &

Edwards, 1998). Although our model was built on a sound theoretical basis (LeBreton, Wu, &

Bing, 2009), the data were cross-sectional, which carries limitations in establishing an actual

'timeline' of our model (Maxwell & Cole, 2007).

Results

Means, standard deviations, Cronbach's alphas, and the zero-order correlations are

presented in Table 1.

We used chi-square difference tests (Bentler & Bonett, 1980; James, Mulaik & Brett,

1982) to compare the four models (see Table 2). Overall, the most differentiated model (i.e. four

factors) presented the best fit ($\chi^2(224) = 520.69$**; CFI = .94; GFI = .92; RMSEA = .05) when

compared to the three-factor ($\Delta\chi^2(3) = 602.12^*$;), two-factor ($\Delta\chi^2(5) = 1469.27^*$), and one-factor ($\Delta\chi^2(6) = 2042.84^*$) models. Factor loadings ranged between .65 and .79 for abusive supervision, 69 and .72 for coworker humor, .69 and .77 for ostracism, and .49 and .75 for interpersonal deviance. The results of the discriminant validity (the CFA supported the distinctiveness of the constructs) combined with the high reliability score (alpha = .83) provide support for our measure of coworker humor.

Test of Hypotheses

To test our hypotheses we applied the bootstrapping procedure developed by Preacher, Rucker and Hayes (2007) as it is the most robust method to test conditional indirect effects (Hayes, 2013). The usefulness of such approach is that bootstrapping does not need any assumptions regarding the shape of the sampling distribution (Preacher et al., 2007), which is important when: a) examining constructs with a low-base rate, i.e., skewed distribution, like abusive supervision; and b) when examining indirect effects, as they usually do not follow a normal distribution and therefore provide a biased p-value (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Thus, such analysis helps avoid power problems resulting from asymmetric and other non-normal sampling distributions resulting from testing indirect effects (Mackinnon, Lockwood & Williams, 2004). Specifically, we used the SPSS macro developed by Preacher et al. (2007) to test our hypotheses, since it allows us to simultaneously examine direct, interaction, and mediated-moderation effects (model 8). In our model, a conditional indirect effect exists when the strength of the relationship between the predictor (X – abusive supervision) and outcome (Y – interpersonal deviance) via the mediator (M – workplace ostracism) differs across high and low levels of the moderator (W – coworker humor) (Preacher et al., 2007). As recommended by Cheug and Lau (2008) we used 1000 bootstrap samples to

generate our results. We also used bias-corrected limits as they tend to show higher power and closer-to-accurate Type I error rates when compared to the multivariate delta method used by other tests, such as the Sobel test (Preacher et al., 2007). We also centered our predictor variables before entering them in the equation. Our results are presented in Table 3.

Hypothesis 1 predicted that abusive supervision would be positively related to workplace ostracism. This hypothesis was supported (B = .47; .LLCI .40, ULCI .54). Additionally, we found that coworker humor also presented a significant negative relationship with workplace ostracism (B = -.22; LLCI -.27, ULCI -.16).

Next, we tested hypothesis 2, which stated that the relationship between abusive supervision and workplace ostracism would be moderated by coworker humor. Following our prediction, humor was a significant moderator of the relationship between abusive supervision and workplace ostracism (B = -.16; LLCI -.26, ULCI -.07). As depicted in Figure 2, the interaction effect matched the pattern proposed in our hypothesis. As abusive supervision increased, so did workplace ostracism, particularly when coworkers humor was low (t = 12.30, p <.05). When coworker humor was high, the relationship between abusive supervision and workplace ostracism was still significant (t = 6.67, p <.05), but significantly weaker than when humor was low (t = -3.27, p < .05).

Finally, we tested hypothesis 3, which predicted that the conditional effects of abusive supervision on ostracism, dependent of the levels of coworker humor, extended to employee's deviant behaviors toward coworkers (i.e., interpersonal deviance). The first condition to examine mediated-moderation (as in other types of mediation), is whether the mediator is related to the outcome variable. In the present study, ostracism was significantly related to interpersonal deviance (B = .14; LLCI .03, ULCI .25). Indirect effects tests revealed that the relationship

between abusive supervision and interpersonal deviance via increased ostracism was stronger

when coworker humor was low (-1SD; B = .08; LLCI .01, ULCI .17) than when it was high

(+1SD; B = .05; LLCI .01, ULCI .11). Although the index of moderated mediation was -.03

(LLCI -.07, ULCI .00), the z-prime test (MacKinnon et al., 2002) suggests the moderated

mediation is significant (t = -1.96; p < .05). These results provide preliminary support for our

mediated-moderation hypothesis (Hypothesis 3). Finally, the direct relationship between abusive

supervision (B = .16; LLCI .05, ULCI .26) and interpersonal deviance remained significant after

controlling for the mediator (ostracism). Our model explains 37% of the variance in workplace

ostracism and 7% in interpersonal deviance.

Discussion

Researchers have only recently started to consistently examine ostracism in the

workplace (e.g., Ferris et al., 2008), even though there is an accumulated body of research

concerning its impact on everyday life (Williams, 2001, 2007). The goal of the present study was

to help fill in that gap, by building on the crossover model of COR theory (Hoboll, 1989) and

providing empirical evidence concerning antecedents of workplace ostracism, potential

moderators, and its relationship with employee deviant behaviors directed at coworkers (i.e., the

source of ostracism). Specifically, our study revealed a negative crossover effect: as abusive

supervision increases, the likelihood of ostracism in the workplace increases as an attempt to

protect individuals from potential resource loss. However, we also found evidence for the

buffering hypothesis of a specific form of social support, as this relationship is moderated by

coworker humor. Taken together, these results present several contributions.

First, we contribute to the scarce literature on the antecedents of ostracism. Most

researchers have focused on the consequences of ostracism, as they can be devastating, both for

the ostracized individual as well as for others (Williams, 2007). However, by further

understanding the reasons behind ostracism in the workplace, one can focus on developing

strategies that help prevent, rather than cure, social exclusion. We hypothesized that coworkers'

decision to ostracize specific individuals is based on a negative crossover effect. COR theory

argues that individuals strive to protect themselves from resource loss, regardless of whether it is

a threat or an actual resource loss (Chen et al., 2015). If an individual is the target of abusive

behaviors by a powerful and influential actor such as the supervisor, his/her colleagues may

decide that being associated with that person carries higher potential costs, by attracting negative

attention to themselves, putting them in a privileged position to become the next target.

Therefore, in anticipation of what could happen in the future and as a protection strategy of an

important resource (i.e., supervisor), they exclude that person from the group.

Second, our study also begins to uncover the potential of humor as a preventive strategy

for interpersonal problems in the workplace, including ostracism. When coworkers used humor

frequently, the relationship between abusive supervision and perceived workplace ostracism was

weakened. From a broaden-and-build perspective (Fredrickson, 1998), humor helps create

positive crossover effects, increasing the self-other overlap (Waugh & Fredrickson, 2006). That

is, in when in these positive emotional states, individuals tend to widen their sense of self to

include others, producing feelings of 'oneness' and bringing people closer to one another

(Waugh & Fredrickson, 2006). This positive environment is reinforced through a positive

feedback loop (Robert & Wilbanks, 2012), which helps individuals separate the source of abuse

(i.e., supervisors) from the workgroup, thus reducing the strength of the relationship between

abusive supervision and perceived workplace ostracism.

The mediating role of ostracism in our model should also be highlighted. Ferrin et al. (2008) brought attention to the relevance of trying to integrate ostracism in interpersonal models. We do so by advancing a new mechanism that helps explain the negative spiral of mistreatment in organizations (Scott et al., 2013): when someone is a target of supervisor mistreatment, (s)he is more likely to become a victim of coworker mistreatment (unless the group is able to provide valuable resources via the development of positive emotions), responding in turn with additional mistreatment directed at the coworkers.

Theoretical and Practical Implications

The present study carries implications for both theory and practice. This study not only drew attention to our lack of knowledge about its antecedents, but also to the multiplicity of situations that can promote ostracism, thus providing interesting opportunities for future research, for example in the study of layoffs. Survivors usually present two reactions to downsizings; either they distance themselves from the victims or from the organization (Brockner, Grover, Reed, DeWitt & O'Malley, 1987). It would be interesting to examine the conditions that determine whether individuals respond to layoffs by ostracizing victims or by reducing their emotional bond to the organization.

Additionally, it also demonstrates the potential of humor for organizational studies. Contrary to traditional viewpoint that humor is "frivolous and unproductive" (Morreall, 1991, p. 359), humor appears to have quite the opposite effect in organizations. It is an important facet of leadership (Avolio et al., 1999), fosters creativity (Lang & Lee, 2010), and has the potential to impact research on performance culture, human resource management, among other important elements of organizational life (Robert & Yan, 2007). Therefore, more research is needed concerning the forms of humor that are effective in the workplace, its implications for work

environment and employee behavior, and its boundary conditions, as humor can also be detrimental (e.g., self-defeating or aggressive humor; Martin et al., 2003).

For practitioners, it draws attention to the relevance and complexity of ostracism in the workplace. Overall, it emphasizes the benefits of minimizing the occurrence of ostracism, rather than spending resources trying to deal with it once it has occurred, as these might be ineffective. Once it starts, it can be difficult for organizations to effectively deal with ostracism, as it might be dependent not on the strategies they put forth, but on the individuals' ability to cope with ostracism (Wu et al., 2012).

Furthermore, our study provides managers with an inexpensive and effective tool to help (partially) prevent perceptions of workplace ostracism, and later retaliation against coworkers. Organizations can easily foster the positive use of humor between coworkers, through strategies such as collecting cartoons and jokes in times of stress or providing an environment that does not condone telling funny stories during breaks. Curiously, there are already humor consultants available to coach corporations and their employees how to incorporate appropriate types of humor (i.e., playful, appropriate and not offensive) in their daily work life (Gibson, 1994). The encouragement of the use of humor at work not only reduces the occurrence of ostracism but also reaps other benefits, such as increased cohesiveness or reduced stress (Martin, 2007).

Nonetheless, introducing humor in an organization might not be as easy as it seems at first sight. If not strongly grounded in a culture of openness where individuals can voice their concerns and express their emotions, it may be seen as a mere strategy of the organization to 'get more' out of employees rather than a genuine expression of a positive work environment. Moreover, and as Hobfoll (1989) argued, the effectiveness of specific types of social support, such as humor, might vary across settings and events. Humor might help alleviate the burden

resulting from interpersonal problems, such as abusive supervision or ostracism, but might be less effective in dealing with other types of problems (e.g., job characteristics) or as time passes by without the actual resolution of the original problem. Thus, implementing humor-based interventions should not be a blanket recommendation – such decision requires a deep analysis of the nature and characteristics of the problem and surrounding context in order to determine the potential of humor (and in what terms) as an effective safeguard.

Limitations and Future Research

The limitations of our study should be acknowledged, but they also serve as an insight for future research opportunities. One limitation concerns our inability to make causality inferences, since our data were collected at one point in time. Organizations were willing to participate in our study under the agreement that the research team would apply the surveys once, and only to a limited number of employees, as to not disturb its regular functioning. However, cross-sectional designs might bias estimates of longitudinal mediation processes, and therefore limit our ability to make inferences about temporal precedence (Maxwell & Cole, 2007). Hence, and despite our efforts to clearly present the theoretical rationale for each of our hypotheses, which is another key condition for drawing causal inferences (LeBreton et al., 2009), our theoretical framework should be interpreted with caution and tested in the future using a longitudinal research design.

A second limitation concerns the implicitness of the underlying logic in some of our hypotheses. We theorized that coworkers ostracize individuals to try to protect the group from future threats and to increase cohesiveness (Gruter & Masters, 1986). Although our hypotheses were supported, we did not measure threat, and therefore cannot unequivocally state that these perceptions were the mechanism behind coworkers' decision to ostracize. Moreover, we did not rule out potential effects of other variables, such as negative affect (Watson, Clark, & Tellegen,

1988). Although previous research has conceptualized (and empirically tested) negative affect as stemming from abusive supervision (Hoobler & Hu, 2013), further research is needed to fully understand the dynamics between abusive supervision and negative affect in relation to feelings of being ignored and excluded, i.e., ostracism. Future research should examine these, and other potential mechanisms that further explain the nature of the link between abusive supervision and ostracism.

Another potential limitation concerns our operationalization of coworker humor. We based it on the Wheel Model of humor (Robert & Wilbanks, 2012) which views humor in a positive fashion, and adapted the items developed by Avolio et al. (1999) to coworkers. These items provide a broad conceptualization of humor, focused mostly on the frequency of its occurrence. They also assume a positive perspective of humor and rarely make reference to the target of humor. This broad conceptualization might explain the small, albeit significant, difference between high and low coworker humor and opens the door to new avenues of research. As Romero and Pescosolido (2008) noted, there are many instances of humor that may not result in positive emotions and cognitions, such as failed humor, putdowns, misinterpretations, etc. Future research should therefore examine who should use humor (e.g., leaders vs. coworkers), what types of humor (e.g., self-enhancing, affiliative, aggressive and self-defeating: Martin et al., 2003), when they should use it, and the boundaries within which the use of humor is beneficial, in order to fully understand how it operates in the workplace. Our expectation is that studies taking these nuances into account will probably find stronger beneficial effects for positive facets of humor, and opposite effects for the negative facets of humor.

We would like to highlight additional possibilities for future research, beyond those that directly stem out of this study's limitations, that we believe could deepen our understanding of the phenomena covered in the current study. First, although coworker humor was an effective buffer, the relationship between abusive supervision and workplace ostracism remained significant. This result suggests that researchers should also look for other potential moderators. One possible example is the extent to which coworkers believe in a just world. This belief holds that victims are held to be responsible and blameworthy for their own situation (Lerner, 1980). When the belief in a just world is strong, people are more likely to engage in secondary victimization (Hafer & Bégue, 2005). Therefore, if coworkers believe that an individual deserved the negative treatment received by the supervisor, the chances of responding with ostracism should increase and the effectiveness of coworker humor should be reduced. Second, we only examined the supervisor as a relevant intervenient for the development of workplace ostracism. Although supervisors are subordinates' most proximal psychological foci (Lewin, 1943), actions from other organizational actors, such as coworkers themselves or top management, should be incorporated in future research and particular attention should be given to the interplay between these actors.

Conclusion

Our study addressed two under researched themes in organizations, workplace ostracism and coworker humor. It exposed the role of third parties, in this case the supervisor, in the development of workplace ostracism, and its impact on employee deviant behaviors directed at coworkers. This vicious circle of mistreatment may lead to severe consequences for organizational functioning. If not addressed by managers, it may escalate and intoxicate the organization (Frost, 2003). We propose a simple, yet apparently effective solution: to stimulate

the use of positive humor between coworkers in their daily activities. Overall, coworker humor

emerged as a potential safeguard for the development of ostracism, and our study shows that

serious issues such as work-related problems and social ostracism can be tackled, at least to some

extent, with a humorous take.

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Table 1

Descriptive statistics, zero-order correlations and Cronbach's alphas[a][b]

	Mean[a]	S.D	1	2	3	4	5
1. Abusive supervision	1.55	.53	(.88)				
2. Coworker humor	3.84	.70	-.09*	(.83)			
3. Ostracism	1.55	.52	.51**	-.35**	(.86)		
4. Interpersonal deviance	1.37	.56	.23**	-.03	.20**	(.77)	
5. Organizational size	3.49	1.25	-.11*	-.07	.02	-.09*	---
6. Age	34.81	10.40	-.08	-.24**	.11*	-.02	.26**

Note. Organizational size was coded, 1= less than 10 employees, 2= between 10 and 100 employees, 3= between

100 and 500 employees, 4= between 500 and 1.000 employees, 5= more than 1.000 employees.

[a]. 5-point scales

[b]. Cronbach's alpha is reported on the diagonal

** p< .01; * p< .05

Table 2

Confirmatory factor analysis (CFA) fit indices

Models	χ^2	df	$\Delta\chi^2$	CFI	GFI	RMSEA
4 factors	520.69**	224		.94	.92	.05
3 factors [a]	1122.81**	227	602.12*	.80	.76	.09
2 factors [b]	1989.96**	229	867.15*	.64	.64	.12
1 factor	2563.53**	230	573.57*	.53	.59	.14

* p< .05; ** p < .01

Note. CFI= comparative fit index; GFI = Goodness-of-fit index; SRMR = standardized root mean square residual;

RMSEA = root mean square error of approximation.

[a] Equating abusive supervision and ostracism

[b] Equating abusive supervision, ostracism, and humor

Table 3

Bootstraping analysis

|	Workplace ostracism					Interpersonal deviance				
	B	t	LLCI	ULCI	R^2	B	t	LLCI	ULCI	R^2
Control variables										
Organizational size	.00	.92	.00	.00		.00	-2.60**	.00	.00	
Age	.00	1.85	-.00	.01		-.00	-.08	-.00	.00	
Main effects										
Abusive supervision	.47	13.12**	.40	.54		.16	2.94**	.05	.26	
Coworker humor	-.22	-7.98**	-.27	-.16		.01	.37	-.06	.09	
Interaction										
Abusive Supervision x Humor	-.16	-3.29**	-.26	-.07	.37	.05	.77	-.08	.17	
Mediator										
Workplace ostracism						.14	2.45*	.03	.25	.07
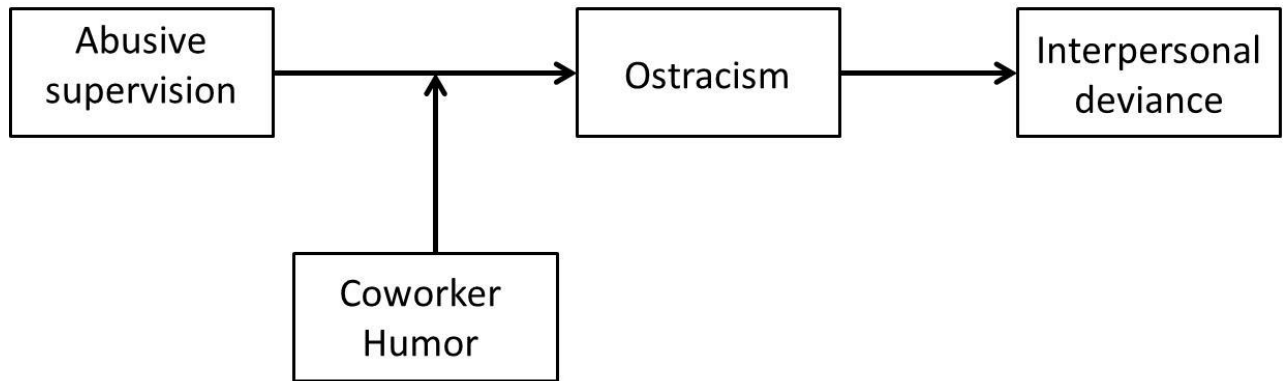
*Figure 1.*Proposed model of analysis
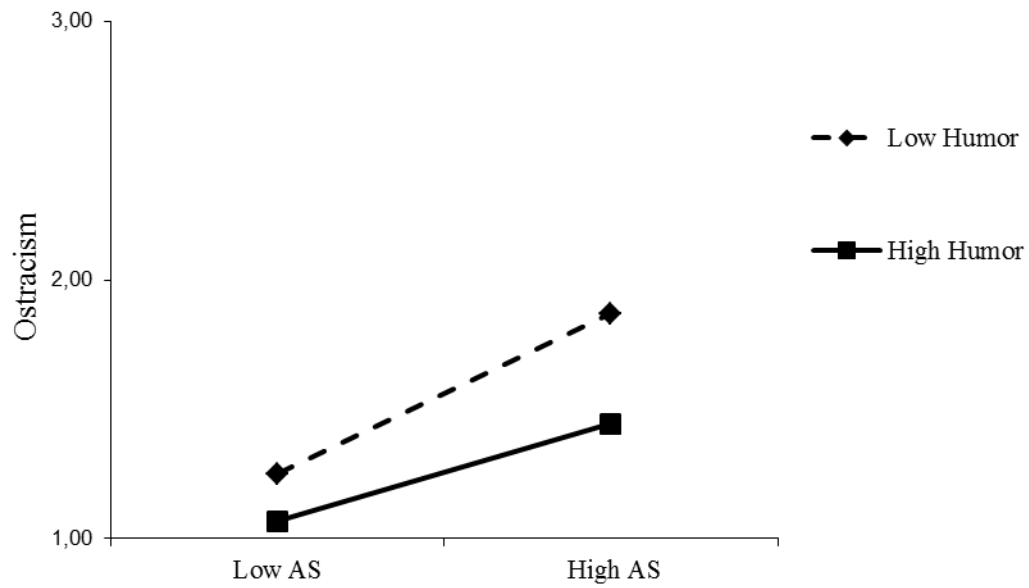
Figure 2. Interaction effect of abusive supervision x coworker humor (low = -1SD; high =

+1SD) on workplace ostracism