Opening the black box: Why and when workplace exclusion affects social reconnection behaviour, health, and attitudes

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By integrating belongingness theory and the sensitivity about being the target of a threatening upward comparison (STTUC) theory, we explicate a process through which co-worker exclusion is positively related to social reconnection behaviour in the workplace. Specifically, we argued and found that exclusion prompts ingratiatory and citizenship behaviours via the perception of being envied by colleagues. Despite these positive outcomes, we also found the mediated relationship of exclusion and perceptions of being envied to be damaging to workers' psychological health and work-related attitudes, and that these relationships were the strongest among employees with high positive affect (PA). We tested our model across two distinct samples that included full-time Dutch (Study 1) and American (Study 2) employees. Implications for theory and practice are discussed.

"Jennifer" is a hardworking, dedicated employee whose competence and values have earned her both promotional opportunities and praise from upper management. Though she tries hard to get along with the colleagues in her department she is frequently shunned and excluded by them. Jennifer believes it is because they are envious of her success and the close relationship she shares with her manager. Jennifer goes out of her way to be friendly and helpful in hopes of winning them over but as the exclusion continues, she grows more and more tense and considers finding employment elsewhere.

Employee experiences of exclusion such as Jennifer's can be painful and often lead to undesirable outcomes. The negative consequences of exclusion for employees and organizations are particularly troublesome when one considers the prevalence of exclusionary practices within work settings (e.g., not being invited to informal and formal work events, not being heard or acknowledged, being left out of important projects). Indeed, a recent

study reported that 66% of the study participants had been ignored by their colleagues, 16.6% of which experienced such a behaviour frequently or very often (Fox & Stallworth, 2005). The pervasiveness of workplace exclusion is not surprising. As noted by Williams (2001), anyone can engage in exclusionary behaviour—one does not need a lofty position or special authority to do it. Social exclusion is often subtle or intangible and, therefore, not usually subject to punitive action. Equally concerning is that exclusionary practices invoke strong reactions among excluded targets. Workplace exclusion has been shown to negatively influence workers' behaviour and well-being even beyond the effects of other serious forms of mistreatment, such as work sabotage or slander (Ferris, Brown, Berry, & Lian, 2008; Hitlan, Cliffton, & DeSoto, 2006). Yet, studies of workplace exclusion remain sparse.

With an initial emphasis on trying to establish a link between exclusion and extremely aggressive reactions (see Blackhart, Baumeister, & Twenge, 2006; Williams, 2001, 2007 for reviews) much of this research has understandably, albeit unevenly, focused on a range of antisocial and self-defeating responses following exclusion

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experiences such as increased hostility, aggression, lowered performance and withdrawal of helping behaviour (e.g., Baumeister, Twenge, & Nuss, 2002; Thau, Aquino, & Poortvliet, 2007; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). Surprisingly, these findings seem to contradict the central tenets of belongingness theory (Baumeister & Leary, 1995) on which exclusion research is generally based. This theory presumes that people have an innate, biologically driven need to belong and gain acceptance from others to enhance their chances for safety, success or even survival.

Recently, research has begun to explore more complex models of exclusion responses in an effort to reconcile this apparent paradox. Though many studies have shown that exclusion is directly and negatively related to relationship-strengthening behaviour (e.g., Balliet & Ferris, 2013; Hitlan et al., 2006; Thau et al., 2007; Twenge et al., 2007), in experiments where opportunities for future interaction were provided to excluded subjects it was found that they displayed a variety of social reconnection behaviours (e.g., giving rewards to others, mimicking others' behaviours, conforming) (Lakin & Chartrand, 2003; Maner, DeWall, Baumeister, & Schaller, 2007; Williams, Cheung, & Choi, 2000). Recent work further shows that excluded individuals who are predisposed to focus on future outcomes also engage in high levels of helping behaviour (Balliet & Ferris, 2013). From this body of literature, we surmise that when mediating or moderating factors are considered alternative behavioural patterns may emerge. However, studies that explicate why and when exclusion is associated with social reconnection behaviour are exceedingly rare.

We take steps in our current work to fill this gap. Because recent studies suggest that excluded individuals may be more likely to contemplate the reasons for their exclusion than to react emotionally such as with anger or distress (DeWall, Twenge, Gitter, & Baumeister, 2009), we focus on cognitive reasoning processes that can follow exclusion experiences and contend that one relevant explanation for why exclusion may evoke social reconnection lies within the social comparison literature. In response to difficult or ambiguous circumstances such as social exclusion people often compare themselves to others in an effort to make sense of their reality (Festinger, 1954). As a result of this comparison, excluded workers can believe that others are envious of them (e.g., their work-related success, accomplishments; Vecchio, 2005). To generate predictions about excluded employee reactions to being envied, we integrate belongingness theory (Baumeister & Leary, 1995) with a theoretical derivation of social comparison theory referred to as STUCC, or the sensitivity about being the target of a threatening upward comparison. Both the exclusion and STTUC literatures acknowledge that self-protection is an important goal in the face of unfavourable social information—especially in response to perceptions of social

threats such as being excluded by others (Beach & Tesser, 2000; Heatherton & Vohs, 2000; Leary, Tambor, Terdel, & Downs, 1995). Indeed, in reaction to socially threatening situations individuals often invoke a "psychological immune system" that helps them reason through or rationalize why they are the target of others' mistreatment (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). Typically, individuals activate their psychological immune system by focusing on their achievements and successes in an effort to offset the potentially unflattering or damaging effects of negative social experiences (e.g., Taylor, 1983; Tesser, 1988). We argue that the fixation on accomplishments and contributions can generate the perception that excluded employees are the target of others' envy (Duffy, Shaw, & Schaubroeck, 2008; Menon & Thompson, 2007). This self-perception can help reduce targets' fear and uncertainty surrounding the perceived threat of exclusion and potentially enable them to secure a "viable niche in the group if possible"—often by engaging in ingratiatory or helping behaviour that facilitates social reconnection (Beach & Tesser, 2000, p. 135; Exline & Lobel, 1999; Kulik & Mahler, 2000).

At the same time however, being the target of others' envy can also be an unsettling and stressful experience—especially in work-related relationships (e.g., Duffy et al., 2008; Exline & Lobel, 1999; Tai, Narayanan, & McAllister, 2012). Thus, we propose that while the belief that one is envied following co-worker exclusion can elicit relationship repair this view may also adversely affect employees' psychological health (i.e., job-induced tension and depression) and attitudinal (i.e., intent to turnover) outcomes.

We also recognize that not all excluded individuals will perceive themselves as envied targets to the same extent; we suggest that certain individuals are more likely predisposed to this reaction than others. We argue that these mediated relationships will be stronger for employees with high levels of dispositional positive affect (PA), a tendency to experience a generally positive mood state composed of feelings like excitement, pride, enthusiasm, and attentiveness (Watson, Clark, & Tellegen, 1988). Though high PA is associated with a keen awareness of one's abilities, potential, and accomplishments (Aspinwall, 2001; Aspinwall & Brunhart, 2000), it is also associated with an increased tendency to engage in self-serving bias—or to attribute success to oneself while blaming others for one's failures (Campbell & Sedikides, 1999; Taylor & Brown, 1988). We propose that high PA predisposes excluded employees to fixate on their successes or achievements and possibly fault colleagues (i.e., view them as envious) for their own lack of belongingness and acceptance in the workplace. As such, we argue that PA will moderate the relationship between perceptions of exclusion and being envied and will strengthen the overall effect of our proposed mediation models.
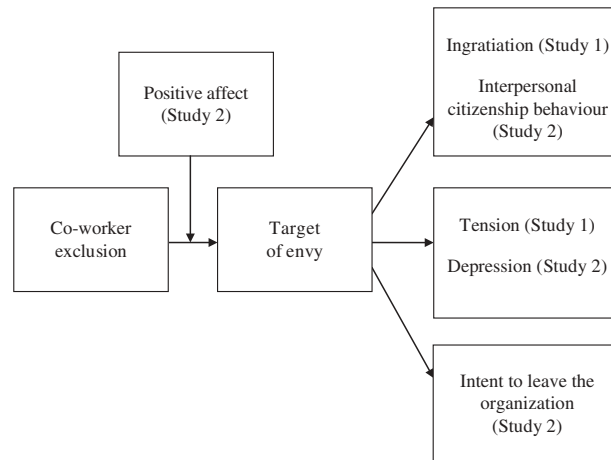
Figure 1.   Proposed theoretical model of employee reactions to co-worker exclusion via perceptions of being envied.

We test this set of relationships across two distinct samples of working adults (see Figure 1). In Study 1 (Dutch workers), we explore the impacts of exclusion on ingratiatory behaviour and job tension (via perceptions of being envied). We add Study 2 (American workers) to provide a constructive replication of our model and to extend our research by investigating the moderating role of PA between exclusion and being envied. The latter study also explores a more specific set of organization-based social reconnection behaviour in the form of interpersonally directed citizenship behaviours (ICBs), and it considers whether the impact of these perceptions on psychological health endures beyond states of job tension to manifest as depression. We also use Study 2 to test an additional facet of STUCC theory that perceptions of being envied may prompt withdrawal behaviour among excluded workers, increasing turnover intentions.

In sum, the undertaking of this work contributes to the extant literature base in three important ways. First, we aim to reconcile disparate findings within the exclusion literature by shifting our focus from traditional aggression-based reactions to exclusion to the development of a model that provides insight into the explanatory mechanisms (i.e., that one is envied by his/her colleagues) that can *invoke* co-worker targeted relationship-building behaviours in response to co-worker exclusion. This is a relatively unique perspective that is underexplored in exclusion research. Second, we take our research a step farther by simultaneously considering a variety of worker outcomes beyond ingratiatory and helping behaviour to include the impact of work-related social exclusion (via target of envy perceptions) on employee psychological health (Studies 1 and 2) and intent to leave the organization (Study 2). Our goal is to illustrate the complex and potentially counterintuitive role of the positive self-view that one is the target of envy in the exclusion process (i.e., this positive self-view may be beneficial to the target in terms of behavioural outcomes but not necessarily in terms of psychological

or attitudinal outcomes). Third, we consider how the moderating role of PA between exclusion and the perception that one is the target of envy strengthens the indirect effect of our mediation model by reinforcing this self-view. In doing so, we delve deeper into a lesser explored area of PA research (i.e., the tendency to engage in self-serving bias in the face of social threats) and offer an explanation as to *when* excluded workers are most likely to perceive that they are the target of co-worker envy (or *for whom* this relationship manifests most strongly). In the light of our findings, we hope to help organizations better understand and manage the workplace exclusion process and to assist workers like "Jennifer" in our opening vignette in dealing with co-worker exclusion. Below, we delineate the constructs in our model and discuss the expected relationships among them.

THEORETICAL BACKGROUND

People often seek to understand why they have been mistreated by others (e.g., Andersson & Pearson, 1999; Crossley, 2009). The experience of social exclusion is no exception as research has shown that excluded individuals are likely to contemplate and try to determine the reasons for their exclusion (e.g., Williams, 2001; Williams & Zadro, 2005). Subsequently, how people interpret these interpersonal indiscretions strongly influences their responses (Bradfield & Aquino, 1999). Within the context of workplace exclusion, we contend that the perception of being excluded by co-workers can impact peoples' responses to their exclusion indirectly via their attempts to determine the reasons for their exclusion. Specifically, we argue that being excluded can generate the belief that one is the target of co-worker envy. A worker can become the target of co-worker envy when his/her co-workers feel that they lack the target's superior quality, achievement or possession, and they either desire it or wish that the target lacked it (Parrott

& Smith, 1993). Despite the possibility that employees may misperceive themselves as being the target of envy when in reality they are not (Vecchio, 2005), we focus on employees' own perceptions that they are envied because these perceptions—more so than the objective features of reality—most strongly determine employees' subsequent behaviours, attitudes, and psychological health (see Kristof-Brown, Zimmerman, & Johnson, 2005, for meta-analytic results; Lewin, 1951; Uhlmann & Cohen, 2007).

We conceptualize and test the perception of being envied as a cognitive appraisal reaction to being excluded by other colleagues—the *presence* of which, we argue, will generate social reconnection behaviours. Consistent with previous exclusion studies (cf. Balliet & Ferris, 2013) we assume that the *absence* of this perception yields a negative or null relationship between exclusion and prosocial behaviour. Our approach aligns with a previous work that has explored how individuals' sense-making processes (i.e., cognitive or emotional reactions) shape subsequent behavioural responses to interpersonal harm-doing (e.g., Barclay, Skarlicki, & Pugh, 2005; Bradfield & Aquino, 1999; Crossley, 2009; Spector & Fox, 2010), which, in turn, yield differing reactions. We expound on these particular reactions below.

Hypothesis development

Following experiences such as social exclusion "people appraise threat, [and] they make a cognitive and affective judgment regarding another person's motives toward the self" thereby questioning why others in the workplace are excluding them (cf. Menon & Thompson, 2007, p. 47). In response to such threats, individuals are highly motivated to maintain positive feelings about the self (Beach & Tesser, 1995) and, therefore, are likely to engage in self-protective thinking, such as focusing on their achievements and accomplishments (Taylor & Lobel, 1989; Tesser, 1988). Indeed, theoretical and empirical evidence suggests that exclusion prompts self-defensive reactions (e.g., Baumeister, Smart, & Boden, 1996; Smart Richman & Leary, 2009; Williams & Zadro, 2005). We argue that such beliefs can evoke the perception that one is envied (e.g., my colleagues are envious of my accomplishments, my colleagues resent my success). By casting their self-image in a more favourable light, employees call upon a psychological defence mechanism that helps them buffer or gain "immunity" against the negative, painful or aversive experiences associated with exclusion (Gilbert et al., 1998). In terms of STTUC theory, this favourable image of self-superiority is more formally referred to as being the target of others' upward comparisons. Others' upward comparisons imply that workers compare themselves to the target and perceive him/her as being more successful or accomplished or as having a greater advantage relative to themselves (Festinger, 1954).

While prior research has demonstrated that being the target of this type of upward comparison can have positive consequences, such as a sense of relief or pleasure from one's superior performance or status (e.g., Taylor & Lobel, 1989), other research has shown that many individuals are uncomfortable or even distressed when they perceive themselves to be on a "higher pedestal" or receiving such attention (e.g., Santor & Zuroff, 1997, 1998). The latter response is more likely if the target is concerned that his/her relationships with others may be strained or weakened as a result of this comparison (Exline, Single, Lobel, & Geyer, 2004). According to STTUC theory (Exline & Lobel, 1999), envied individuals who can become concerned about the negative ramifications associated with being the target of envy are likely to focus on relationship development and repair, often by "complimenting, providing encouraging words, or doing something nice [for the other person]" (Parrot & Mosquera, 2008, p. 123). Indeed, STTUC research has shown that upward comparison targets are likely to try to mitigate others' concerns by engaging in social reconnection efforts through ingratiatory or socially supportive behaviours (e.g., Exline & Lobel, 1999; Van de Ven, Zeelenberg, & Pieters, 2010). Extending this line of reasoning to the current study, we offer a previously untested mediation model which predicts that the perception of being excluded will be positively related to impression-enhancing behaviour in the form of ingratiation (e.g., flattery, conformity) and that this relationship is partially mediated by the belief that one is the target of co-worker envy.

> *Hypothesis 1:* The relationship between workplace exclusion and ingratiatory behaviour is partially mediated by the perception that one is the target of co-worker envy.

We also seek to offer a more nuanced account and investigation of the outcomes of the exclusion process by arguing that the perception that employees are the targets of co-worker envy is self-protective in terms of relationship development responses to exclusion but not necessarily in terms of wellness and attitudinal outcomes. We contend that this perception has detrimental effects on employees' well-being (Studies 1 and 2) and their desire to remain as a part of the organization (Study 2). Our reasoning is in line with Exline and Lobel (1999) who note that the self-enhancing benefits associated with outperforming others is often tempered by the realization that one's outperformance has either hurt other individuals or one's relationship with them. Related studies lend support to this notion and reveal that targets often feel anxiety, stress or emotional discomfort as a result of their perceived superior status (Henagan, 2010; Tesser, 1988). Accordingly, we argue that the perception that one is envied—stemming from the experience of

workplace exclusion—is associated with high levels of job-related tension (e.g., job-related nervousness, stress, insomnia). Thus, we contend that excluded employees are still likely to feel tension or stress despite the generally positive self-image reflected by—and the increased social reconnection behaviour associated with —the belief that they are the target of co-worker envy. In sum, we offer the following prediction:

> *Hypothesis 2:* The relationship between workplace exclusion and job-related tension is partially mediated by the perception that one is the target of co-worker envy.

STUDY 1 METHOD

Participant population

Data for this study were collected as part of a larger investigation involving six organizations (predominantly service firms, e.g., consulting, pension administration, insurance) based in the Netherlands. Data were collected by online surveys at two points in time, 8 weeks apart (Time 1 and Time 2). A member of the research team fluent in both Dutch and English translated the English version of the questionnaire into Dutch. The questionnaire was then back-translated into English by another bilingual domain expert. Employees received confidentiality assurance and an e-mail with an invitation to participate in the online survey. 217 out of 274 employees completed the Time 1 survey for a response rate of 79%. At Time 2, 140 employees who participated at Time 1 completed the second survey for a participation rate of 65%. Missing data reduced the sample size to 114 subjects, 35% of which were male. The average age was 36.9 years (*SD* = 10.04 years), and the average tenure was 9.5 years (*SD* = 9.29 years).

Measures

All the measures, excluding demographic variables, utilized a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) unless otherwise noted. Higher scores indicated greater magnitudes of the study variables. At Time 1, we collected the control variables (described below) and perceptions of co-worker exclusion. At Time 2, we collected perceptions of being envied, prosocial behaviour (i.e., ingratiation) and job-related tension.

Co-worker exclusion. At Time 1, co-worker exclusion was measured with Ferris et al.'s (2008) 10-item Workplace Ostracism Scale. Participants were asked to indicate the extent to which they believed several statements about how co-workers may have behaved towards

them to be true. A sample item is "My co-workers did not sit near me during work-related activities (e.g., meetings, breaks, etc.)." Response options ranged from 1 (never) to 5 (always) (α = .80).

Target of envy. At Time 2, target of envy was assessed with Vecchio's (2005) three-item Target of Envy Scale which asks participants to rate the extent to which they believed several statements about themselves and their organization to be true. Sample items included: "Some of my co-workers are envious of my accomplishments" and "Because of my success at work, I am sometimes resented by my co-workers" (α = .88).

Co-worker ingratiatory behaviour. At Time 2, co-worker ingratiation was measured with Wayne and Ferris's (1990) ingratiation scale, which includes items such as "I did personal favours for my co-workers" and "I offered praise to my co-workers" (α = .74).

Job-induced tension. At Time 2, tension was evaluated with House and Rizzo's (1972) seven-item scale. Participants were asked to indicate the extent to which they believed several statements about their work and home life to be true. A sample item is "I work under a great deal of tension" (α = .83).

Control variables. Consistent with prior research (e.g., Duffy, Shaw, Scott, & Tepper, 2006; Schaubroeck & Lam, 2004; Tepper, 2000), we controlled for the effects of participants' age, gender, organizational tenure, and perceived organizational support (POS) as these variables may be related to perceptions of social interactions, status, social comparisons, and social behaviour. Respondent age was evaluated as chronological age, gender was recorded as male/female, and organizational tenure was measured as the number of years an individual had worked for an organization. Finally, using the six-item short version of Eisenberger, Huntington, Hutchison, and Sowa's (1986) scale (α = .85) we controlled for POS to rule out the possibility that employees' positive experiences within their organization might affect our outcome variables—especially job-related tension (Rhoades & Eisenberger, 2002). We also controlled for each company since the data were collected from six different organizations. The results were the same regardless of controlling for the six different organizations or not; hence, the dummy coded control variables were dropped from the model to preserve degrees of freedom.

STUDY 1 RESULTS

Measurement

Table 1 presents the descriptive statistics, interconstruct correlations and Cronbach's alpha reliabilities (listed

TABLE 1
Descriptive statistics and correlations among Study 1 variables

	M	SD	1	2	3	4	5	6	7	8
1. Gender[a]	N/A	N/A								
2. Age	36.9	10.04	−.15*							
3. Tenure	9.49	9.29	.08	.51**						
4. Perceived organizational support	3.39	.70	.02	.01	−.07	(.85)				
5. Co-worker exclusion	1.57	.63	−.08	−.13	−.04	.01	(.80)			
6. Target of envy	2.22	.95	−.27**	−.15	−.13	−.02	.22**	(.88)		
7. Co-worker ingratiation	3.38	.87	.16	−.01	.12	.12	−.06	.10	(.74)	
8. Job-induced tension	2.49	.89	.02	−.11	−.26**	−.20*	.24**	.29**	.09	(.83)

$n = 114$. Coefficient alphas are presented in parentheses along the diagonal. [a]Gender is coded as male = 0 and female = 1. *$p < .05$; **$p < .01$.

TABLE 2
Hierarchical regression and indirect effect results for Study 1

	Ingratiation			Job tension		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Gender	.10	.10	.27	.11	.12	.27
Age	.00	.00	.01	.00	.01	.01
Tenure	.01	.01	.01	−.03**	.03**	−.03**
Perceived organizational support	.06	.05	.06	−.26**	−.25**	−.24**
Co-worker exclusion		−.19	−.23		.39**	.31
Target of envy			.14*			.25*
Total R^2	.03	.05	.09*	.12***	.17**	.23***
ΔR^2	.03	.02	.04*	.12***	.05**	.06***
Mediation test						
Indirect coefficient			.04*			.08*
Confidence interval			.01–.22			.01–.14

$n = 114$. Reported coefficients are unstandardized. Number of bootstrap resamples = 10,000. [a]Gender is coded as male = 0 and female = 1. *$p < .05$; **$p < .01$; ***$p < .001$.

along the diagonal) for our study variables. We tested our predicted indirect relationships using Preacher and Hayes' (2004, 2008) mediation script with bootstrap estimates to determine the standard errors and significance of our mediated effects. The results of these analyses, along with hierarchical regression results, are presented in Table 2.

Hypothesis tests

To evaluate the potential for response and self-selection biases, we compared participants who participated in both Time 1 and Time 2 with those who completed only Time 1. We coded participants who completed both surveys as 1 and those who did not participate at Time 2 as 0. We conducted a logistic regression analysis with this dichotomy as the dependent variable and participants' gender, age, tenure, work status (full or part time), and exclusion as the T1 predictors. None of the relationships were significant.

We computed our hierarchical regression analysis, and, as the first step, we entered the control variables in predicting employee prosocial behaviour (i.e.,

ingratiation) and job-induced tension (see Table 2). None of the controls significantly predicted co-worker ingratiatory behaviour though tenure and POS were both negatively related to job-related tension. At Step 2, we entered perceived exclusion as our distal predictor variable. We found that perceived exclusion did not significantly predict ingratiatory behaviour but was positively related to job-induced tension. At Step 3, co-worker exclusion was also positively correlated with the perception of being envied—our mediating variable ($r = .22$, $p < .01$).

We conducted formal significance tests of the indirect effects using the bootstrapping procedure developed by Preacher and Hayes (2004, 2008). This approach can be applied with greater confidence to small samples because it has more power while maintaining control over Type I errors, and it does not require that the indirect effect be normally distributed (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). We found significant indirect effects at the .05 level of significance for the relationships between co-worker exclusion and ingratiation as well as between co-worker exclusion and job-induced tension. Because zero was outside the 95% confidence

interval (CI) range, we can conclude with at least 95% confidence that both the indirect effects were different from zero. Therefore, Hypotheses 1 and 2 were supported. While our total effects were not significant for Hypothesis 1 (i.e., co-worker exclusion was not significantly related to co-worker ingratiation), it is generally well accepted among experts in mediation analysis that indirect effects can exist in the absence of total effects (e.g., Hayes, 2009; Mathieu & Taylor, 2007; Shrout & Bolger, 2002), especially if the indirect effects are significant following bootstrap analyses. See Table 2 for the results of these analyses.

STUDY 2

Extensions

The results in Study 1 provided strong support for our research model, but those findings may be limited to a specific context (i.e., workers in the Netherlands) or the type of measure used. Consistent with previous research (e.g., Thau & Mitchell, 2010) and methodologist recommendations for addressing such issues (Lykken, 1968) we took steps to constructively replicate and extend our work using an additional sample of full-time working adults employed across a variety of industries in the United States. Specifically, we sought to replicate the indirect effect of exclusion via being envied perceptions on worker helping behaviour and well-being.

In terms of extensions, in Study 2, to assure our results were not scale-specific we used a measure of *workplace* helping behaviour known as ICB in lieu of the co-worker ingratiation scale. ICBs are a subset of the broader category of organizational citizenship behaviours and include colleague-focused behaviours such as helping a co-worker with work-related projects or covering for an employee while they are absent (Bowler & Brass, 2006, Lee & Allen, 2002). Thus, ICB reflects discretionary relationship-enhancing behaviour aimed at other individuals in the organization rather than the organization at large. These behaviours, though related, differ slightly from the ingratiation items used in Study 1. The latter measure reflects a general tendency to engage in flattery or compliment-giving while the former represents a more active form of helping behaviour such as filling in for an absent co-worker or spending extra time assisting a colleague. The ICB measure tends to also be more widely utilized than ingratiation and, therefore, is a more well-known measure of work-based voluntary prosocial behaviour (Lee & Allen, 2002). Thus, in Study 2, we predict that exclusion (via perceptions of being envied) is associated with higher levels of ICB given that, among excluded employees, being the envied target in the workplace is likely to prompt behaviours to facilitate and strengthen social bonds with colleagues.

With respect to psychological health, we sought to determine if the detrimental effect of one perceiving that he/she is an envied target following experiences of exclusion extends beyond a *state* of job-related tension by inflicting more serious psychological damage in the form of *worker depression*, which includes feelings of despair and hopelessness (Quinn & Shepard, 1974). Related studies suggest this may be so. As noted earlier, envied targets often feel anxiety, stress or emotional discomfort as a result of their perceived superior status (Henagan, 2010; Tesser, 1988). Theoretical reasoning on reactions to upward and downward social comparisons offers additional insight to explain why individuals with a self-perceived superior status may experience depression (and not just physiological states such as tension). In particular, Smith (2000) noted that the realization that others are disadvantaged relative to oneself can be upsetting and invoke worry, especially when one understands that this may also have undesirable personal consequences (e.g., loss of a relationship or scorn from others). Worry, fear, or despair is especially likely to manifest as depression when targets continue to focus on their potential loss(es) as well as believe that they have low control over a station such as others' envy. Accordingly, targets are likely to view the situation as not easily transformed, and this further contributes to depressive outcomes (cf. Smith, 2000). Applying this reasoning to Study 1, we argue that being excluded is associated with depression (i.e., extends beyond a state of tension) via perceptions of being envied. That is, we predict that the mediated effect of perceived exclusion through the perception that one is the target of co-worker envy is positively related to employee depression.

Beyond these extensions, we wished to test the third facet of STUCC theory which suggests that targets of upward comparisons may want to remove themselves from the environment in which the comparisons have taken place in order to minimize further discomfort (Exline & Lobel, 1999). Based on this postulation, we contend that targets respond to exclusion with both behaviours (i.e., prosocial actions) and attitudes (i.e., desire to leave the organization). As Exline and Lobel (1999) note, because being sensitive about one's superior status elicits unease, individuals are likely to "avoid [this type of situation] or to reduce its impact" (Exline & Lobel, 1999, p. 315). Management research has demonstrated that employees who wish to escape from stressful or unpleasant work situations often report high levels of turnover intentions (e.g., Harvey, Stoner, Hochwater, & Kacmar, 2007; Jones & Skarlicki, 2003). Thus, in accordance with these findings we argue that excluded workers—via perceptions of being envied—will report high levels of turnover intentions. In sum, in Study 2 we formally tested the following three mediation hypotheses:

Hypothesis 3: The relationship between workplace exclusion and workers' ICB is partially mediated by the perception that one is the target of co-worker envy.

Hypothesis 4: The relationship between workplace exclusion and workers' depression is partially mediated by the perception that one is the target of co-worker envy.

Hypothesis 5: The relationship between workplace exclusion and workers' intent to turnover is partially mediated by the perception that one is the target of co-worker envy.

Moderating role of PA

In Study 2 we further propose that the dispositional tendency to experience PA will strengthen the likelihood that excluded workers will view themselves as the targets of co-worker envy. By testing this notion, we aim to achieve two important objectives: (1) to offer additional insight as to when, or under what circumstances, our proposed indirect model is strengthened, thus yielding a more complete theoretical and practical understanding of the exclusion response process; and (2) to contribute to the budding line of literature that increasingly shows the important and highly influential role of PA in the workplace (e.g., Luthans, 2002; Wright, 2003). As noted earlier, PA is considered to be an affective trait characterized by a generally positive mood state (Watson et al., 1988). Since no research of which we are aware has directly explored the relationships among PA, exclusion, and perceptions of being envied, examining the role of PA as a moderator of the exclusion and being-envied relationship can yield a more detailed and specific understanding of the process by which exclusion results in behavioural and attitudinal outcomes, and there is some initial evidence to suggest that PA will assume this moderating role, thereby intensifying our proposed set of relationships. We ground our prediction in the affect-as-information perspective (Clore, Gasper, & Garvin, 2001, p. 124; Schwarz & Clore, 1983) that suggests "emotional feelings serve as affective feedback that guides judgment, decision making, and information processing." In other words, affect helps individuals to "feel" their thoughts and, thus, plays a key role in aiding individuals with interpreting and processing their contextual experiences. Following this view, studies have shown that employee affect in general—and PA in particular—can exert a strong influence over cognitive judgements and perceptions in the workplace such as job satisfaction, administering performance feedback, and creative decision making (cf. Baron, 2008).

Research suggests that high PA individuals are more likely to see themselves in a positive light—especially under difficult or ambiguous circumstances (Aspinwall, 2001; Aspinwall & Brunhart, 2000; Lyubomirsky &

Ross, 1997). Specifically, high PA individuals are not only prone to self-affirmation but also adept at it, especially in the face of threatening circumstances, such as exclusion (Aspinwall, 1998, 2001). Furthermore, meta-analytic findings demonstrated that individuals with high PA are more likely to engage in self-serving biases when they feel threatened (Campbell & Sedikides, 1999). Indeed, some research shows that individuals with high PA are more averse to experiencing loss or failure, thus strengthening the tendency to engage in self-serving bias and become competitive with others (Isen, Nygren, & Ashby, 1988). This concept implies that perceptions of being the target of envy are more likely to manifest in response to such threats as social exclusion for workers with high PA than low.

Considered together, we argue that high PAs will focus on their strengths and positive attributes as a form of self-protection following exclusion and fault others for their own exclusion. Thus, we contend that the tendency of high PA employees to recognize, draw upon, and reaffirm their strengths will contribute to the view that they are the targets of co-worker envy in response to being excluded, therefore strengthening the effects of our mediated predictions. Accordingly, we offer the following first-stage moderated indirect effect predictions:

Hypothesis 6a: The strength of the mediated relationship between exclusion and ICB (via being envied) will vary depending on the target employee's level of PA; the indirect effect of exclusion via perceptions of being envied on ICB will be stronger when PA is high rather than low.

Hypothesis 6b: The strength of the mediated relationship between exclusion and depression (via being envied) will vary depending on the target employee's level of PA; the indirect effect of exclusion via perceptions of being envied on depression will be stronger when PA is high rather than low.

Hypothesis 6c: The strength of the mediated relationship between exclusion and intent to turnover (via being envied) will vary depending on the target employee's level of PA; the indirect effect of exclusion via perceptions of being envied on intent to turnover will be stronger when PA is high rather than low.

STUDY 2 METHOD

Participant population

We conducted a two-wave longitudinal data collection using a web-based online survey following previous studies' processes and procedures (e.g., Gettman & Gelfand, 2007; Piccolo & Colquitt, 2006). We used

Study Response services, a nonprofit academic service that matches researchers with individuals employed within various industries (e.g., financial services, retail, food service, education, health care) willing to participate in surveys. For this study, 7,000 US-based employees (age 18 or older) employed across a wide range of occupational positions (e.g., administrative assistant, scientist, dentist, welder, general manager) were initially contacted through the Study Response staff who posted URL links to our survey via e-mail along with a cover letter explaining the survey and assuring confidentiality. The participants accessed the survey via a secure Internet address and submitted responses to a secure Internet database. For the Time 1 survey, we received 654 completed surveys yielding a response rate of 9%. Approximately 8 weeks after the Time 1 surveys, we collected a second wave of data. We employed the same procedures to collect data as in the Time 1 survey, and another online survey was administered to all the 654 participants who completed the initial survey. A total of 556 respondents completed the Time 2 survey for a participation rate of 85%. Missing data reduced our sample size to 516. Of these participants, 45% were male, the average age was 41 years ($SD = 11.22$ years), and the average tenure was 7 years ($SD = 7.59$ years).

Measures

As in Study 1, all measures, excluding demographics, were on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) unless otherwise noted. Except for reverse-coded items, higher scores indicated greater magnitudes of the study variables. Co-worker exclusion and target of envy were measured using the same scales as in Study 1. However, the target of envy variable was temporally separated from our outcome variables by administering it at Time 1 instead of Time 2 for this study.

Positive affect.   In line with previous research (e.g., Shaw, Duffy, Jenkins, & Gupta, 1999), we assessed dispositional PA using the 10-item markers of the Positive and Negative Affect Scale (PANAS; Watson et al., 1988), which reflect the extent to which participants have experienced PA during the last few months. Sample items included "enthusiastic," "proud," and "attentive" ($\alpha = .91$).

Co-worker helping behaviour.   At Time 2, organizational citizenship behaviour was measured with Lee and Allen's (2002) eight-item scale, which measures individual-directed citizenship behaviour. These items asked participants to indicate the extent to which they believed several statements about themselves to be true. A sample item was, "I pitched in to help others when things needed to be done" ($\alpha = .81$).

Depression.   At Time 2, depression was evaluated with five items adopted from Quinn and Shepard (1974). Participants were asked to rate the extent to which they believed statements about themselves to be true. Items included, "During the past month, I felt down-hearted and blue" and "I felt hopeful about the future" (reverse coded; $\alpha = .88$).

Intention to turnover.   At Time 2, Cammann, Fichman, Jenkins, and Klesh's (1979) three-item scale was used to assess participants' turnover intentions. The items included: "I often think about quitting" and "I will probably look for a new job in the next year" ($\alpha = .82$).

Control variables.   As in Study 1, we controlled for age, gender, and organizational tenure. To rule out the influence of organization-related factors in Study 2, we chose to more closely align our work with that of other prominent exclusion research. In their study of the impact of exclusion on employee helping and harming behaviours, Thau et al. (2007) controlled for the potential confounding effects of employee perceptions of organizational justice which has been shown to influence worker behavioural reactions such as ICBs. Thus, we controlled for procedural and distributive justice by using three items each, respectively, from Colquitt's (2001) organizational justice scale. Cronbach alphas were $\alpha = .84$ and $\alpha = .90$, respectively.

STUDY 2 RESULTS

Following the same steps as in Study 1, we checked for response and self-selection bias using a logistic regression analysis. We coded participants who completed both surveys as 1 and those who did not participate at Time 2 as 0. These dichotomies were entered as the dependent variables and participants' gender, occupation, age, education level, race, perceived exclusion, and being envied as predictors. Only age was a significant predictor in the regression analysis: older subjects were more likely to participate in our study. Accordingly, we controlled for this variable. In addition, we did not find any significant difference between participants and nonparticipants for either data collection period (i.e., Time 1 or Time 2). Table 3 shows the descriptive statistics, intercorrelations and Cronbach alphas (along the diagonal).

Hypothesis tests

As in Study 1 we took steps to ensure that common method effects were not problematic in this study (e.g., time-wise separation of measurement, confirmatory factor analysis and Harmon single-factor test)—none of which indicated that our data were influenced by these effects. Presented in Table 4 are the unstandardized regression equations that were mean centred prior to performing the hierarchical moderated regression

TABLE 3
Descriptive statistics and correlations among Study 2 variables

Study variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Gender[a]	N/A	N/A											
2. Age	41.07	11.21	−.14										
3. Tenure	7.15	7.59	−.09*	−.38***									
4. Procedural justice	3.03	.93	−.02	.07	.02	(.84)							
5. Distributive justice	3.38	1.01	−.06	−.04	−.06	.57***	(.90)						
6. Co-worker exclusion (T1)	2.11	.89	−.16***	−.14**	−.03	−.21***	−.05	(.91)					
7. Positive affect (T1)	3.42	.62	.05	.21***	.02	.35***	.31	−.17***	(.91)				
8. Target of envy (T1)	2.38	.92	−.10*	−.09*	−.01	−.14	.03	.47***	.03	(.97)			
9. ICBs (T2)	3.87	.50	.03	.06	.00	.16***	.12**	−.17***	.28***	.03	(.81)		
10. Depression (T2)	2.16	.71	−.07	−.15***	.02	−.11**	−.09*	.26***	−.21***	.18***	−.08	(.88)	
11. Intent to turnover (T2)	2.62	.93	−.06	−.14***	−.09*	−.35***	−.26***	.23***	−.25***	.21***	−.22***	.32***	(.82)

$n = 516$. Coefficient alphas are presented in parentheses along the diagonal. ICB, interpersonal citizenship behaviour. [a]Gender is coded as male = 0 and female = 1. *$p < .05$; **$p < .01$; ***$p < .001$.

analyses. Results in the left-hand columns of Table 4 shows the main effect of exclusion was significantly related to being envied in Step 2 ($b = .47$, $p < .001$) as was the main effect of PA ($b = .21$, $p < .001$) accounting for 19% of the variance associated with being envied. In Step 3, the interaction between exclusion and PA was significant ($b = .13$, $p < .05$). Furthermore, the right side of Table 4 reports the regression results for ICBs, depression and intent to turnover that were collected 8 weeks later at Time 2. In these equations, exclusion negatively predicted ICBs ($b = −.07$, $p < .001$), positively predicted depression ($b = .14$, $p < .001$) and was unrelated to intent to turnover ($b = .08$, ns). PA positively predicted ICBs ($b = .18$, $p < .001$), and it negatively predicted depression ($b = −.18$, $p < .001$) as well as intent to turnover ($b = −.17$, $p < .01$). Being envied positively predicted ICBs ($b = .05$, $p < .05$), depression ($b = .07$, $p < .05$), and intent to turnover ($b = .15$, $p < .01$).

We followed the script provided by Preacher and Hayes (2004, 2008) to test the significance of our indirect effects (Hypotheses 3–5)—the results of which are presented in Table 5. We found significant indirect effects for the dependent and independent variable pairs at the .05 and .01 levels of significance (MacKinnon et al., 2002). The bootstrapping results of our mediation analyses showed support for the indirect effect of being envied between co-worker exclusion and ICBs (indirect coefficient = .04, $p < .05$) and intent to turnover (indirect coefficient = .07, $p < .05$). For these relationships, zero was outside the 95% CIs (CI: .01–.06; .01–.12), respectively, thus supporting Hypotheses 3 and 5. However, contrary to our expectation, the indirect effect of exclusion on depression (via perceptions of being envied) was not significant (indirect coefficient = .03, ns). Thus, Hypothesis 4 was not supported.

To test our proposed first-stage moderated mediation effect, we used Preacher, Rucker, and Hayes' (2007) regression-based approach to calculate the conditional indirect effects at various levels of PA, and we mean-centred predictors and graphed indirect effects at one standard deviation above and below the mean of PA (Edwards & Lambert, 2007). We predicted that the conditional indirect effect of exclusion on worker outcomes would be stronger when the target employee reported high rather than low levels of PA. The results of these analyses are reported at the bottom of Table 5. In sum, we found a significant conditional indirect effect of exclusion (via perceptions of being envied) on ICBs at high (conditional indirect coefficient = .03, $p < .05$) and low levels of employee PA (conditional indirect coefficient = .02, $p < .05$) (CI: .01–.06 and .01–.04, respectively). A simple slopes analysis revealed significant differences in the conditional indirect effects (difference test = .01, $p < .05$). A plot of the interaction effect (Figure 2) is consistent with Hypothesis 6a. We also found a significant conditional indirect effect of exclusion (via perceptions of being envied) on depression at high (conditional indirect coefficient = .04, $p < .05$) and low levels of employee PA (conditional indirect coefficient = .03, $p < .05$) (CI: .01–.09 and .01–.07, respectively); simple slopes revealed significant differences in the conditional indirect effects (difference test = .01, $p < .05$), and the interaction plot (illustrated in Figure 3) is consistent with Hypothesis 6b. The mediated effect of exclusion (via being envied perceptions) on intent to turnover was significant at high (conditional indirect coefficient = .08, $p < .01$) and low levels of employee PA (conditional indirect coefficient = .06, $p < .01$) (CI: .04–.15 and .02–.10, respectively); simple slopes showed significant differences (difference test = .03, $p < .05$). The interaction plot (Figure 4) supported Hypothesis 6c. As a check, we also tested the possibility that PA might be a second-stage moderator and influence employee responses to their perception that they are the target of co-worker envy. We found that PA further exacerbated the conditional indirect effect of exclusion on ICBs through perceptions of being envied (indirect effect = −.04, SE = .20, $p < .05$, 95% CI: −1.23 to −.07),

TABLE 4
Hierarchical regression and indirect effect results for Study 2

	Target of envy (T1)			Interpersonal citizenship behaviour (T2)				Depression (T2)				Intent to turnover (T2)			
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4
Age (T1)	-.01*	-.01	-.01***	.00	.00	.00	.00	-.01**	-.01*	-.01*	-.01*	-.10*	-.01	-.01	-.01
Gender[a] (T1)	-.19*	-.07	-.06	.05	.00	.01	.01	-.13*	-.06	-.05	-.05	-.18*	-.11	-.10	-.10
Tenure (T1)	.01	.01	.00	.00	.00	-.01	-.01	.01	.01	.01	.01	-.01	-.01	-.01	-.01
Procedural justice (T1)	-.22***	-.14**	-.14	.07*	.03*	.03	.03	-.05	.02	.02	.02	-.27***	-.22***	-.19***	-.20***
Distributive justice (T1)	.14**	.08	.08	.03	.01	.00	.00	-.05	-.04	-.04	-.04	-.11*	-.10*	-.11	-.11
Co-worker exclusion (T1)		.47***	.47***		-.07**	-.07***	-.01***		.18***	.18***	.14***		.15	.08	.08
Positive affect (PA) (T1)		.21***	.21***		.19***	.20***	.18***		-.16***	-.16***	-.18***		***	***	-.17**
Co-worker exclusion × PA			.13*			.06	.06			.02	.02		-.14*	-.17*	-.01
Target of envy (T1)							.05*				.07*				.15***
Total R^2	.05***	.24***	.25*	.03***	.09***	.10	.11*	.04***	.06***	.06	.07*	.15***	.18***	.18	.20***
ΔR^2	.05***	.19***	.01*	.03***	.06***	.01	.01*	.04***	.02***	.00	.01*	.15***	.03***	.00	.02***

$n = 516$. [a]Gender is coded as male = 0 and female = 1. *$p < .05$; **$p < .01$; ***$p < .001$.

TABLE 5
Indirect effects of co-worker exclusion (via perceptions of being envied) on interpersonal citizenship behaviour, depression, and turnover intention

Dependent variables	Indirect effect	Hypothesis
Tests of hypothesized mediated effects		
Interpersonal citizenship behaviour	.04*	3
Depression	.03	4
Turnover	.07*	5
Tests of hypothesized moderated indirect effects		
Interpersonal citizenship behaviour		6a
Simple paths for low PA	.02*	
Simple paths for high PA	.03*	
Difference test	.01*	
Depression		6b
Simple paths for low PA	.03*	
Simple paths for high PA	.04*	
Difference test	.01*	
Turnover		6c
Simple paths for low PA	.06**	
Simple paths for high PA	.08**	
Difference test	.03*	

$n = 516$. All estimates were tested for significance using bias-corrected confidence intervals from 10,000 bootstrapped samples. *$p < .05$; **$p < .01$.
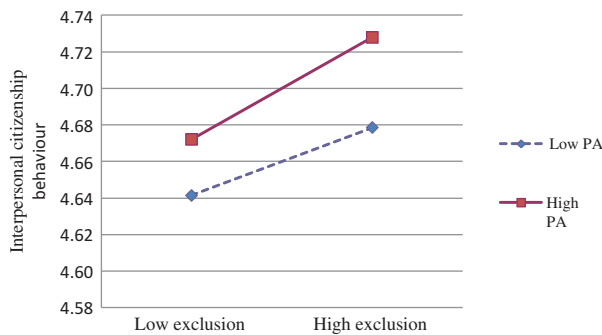

Figure 2. Moderated indirect effect of exclusion on ICBs (via being envied) at low and high levels of PA.
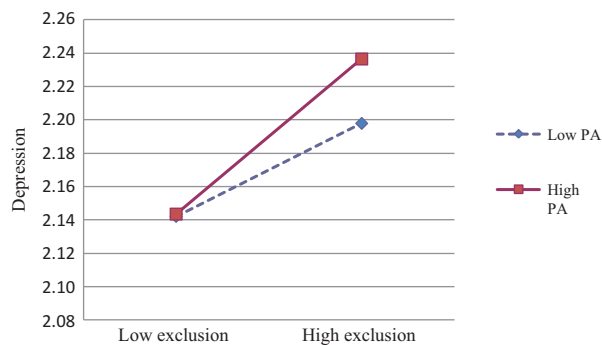

Figure 3. Moderated indirect effect of exclusion on depression (via being envied) at low and high levels of PA.
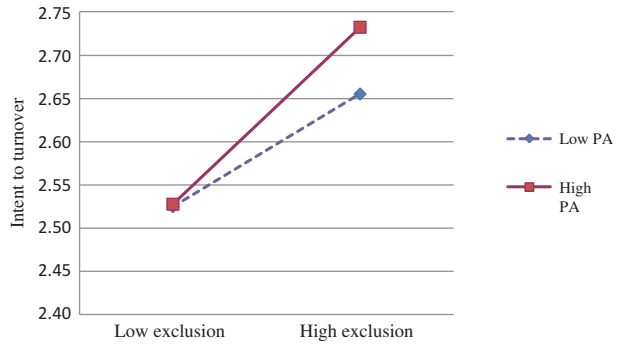

Figure 4. Moderated indirect effect of exclusion on intent to turnover (via being envied) at low and high levels of PA.

but PA had no significant moderating influence on the conditional indirect effects on employee depression or turnover.

DISCUSSION

Theoretical implications

In this article, we develop and test a novel research model that examines why employees respond to exclusion with social reconnection behaviour but also may experience negative health effects and a desire to leave the organization. We also offer an explanation as to when employees are likely to reason that they are the target of co-worker envy following experiences of workplace exclusion. Across two samples of working adults employed in a variety of occupations and industries, we predicted and found that workers with this perception not only display higher levels of social reconnection behaviour but also experience increased job tension and a desire to leave the organization and that this response is strongest among employees with high PA.

The results contribute to theory and research on exclusion, as well as the envy and management literatures, in a number of important ways. First, we qualified previous exclusion research by exploring how the perception of being the target of co-worker envy (i.e., maintaining a positive self-image) can prompt socially adaptive responses (e.g., prosocial behaviour) instead of the aggressive or self-defeating responses shown in many prior studies (e.g., Thau et al., 2007; Twenge, 2001). Specifically, we found in both Study 1 and Study 2 that the direct effect of exclusion on prosocial behaviour was negative (though nonsignificant in Study 1) until the target of envy variable was added as a mediator and then the relationship became positive (see bottom of Tables 2 and 5 for indirect effect results).

Most, though not all, prior investigations of social exclusion have shown a direct negative relationship between exclusion and affiliative behaviour. Our findings are a departure from previous work because our predictions and results reflect indirect and competitive

mediation, respectively (e.g., Hayes, 2009; Preacher & Hayes, 2004, 2008; Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010). Indirect mediation occurs when there is no direct effect of exclusion on interpersonal enhancing behaviour (i.e., ingratiation in our study) but a significant mediation effect exists (i.e., Study 1). With competitive mediation, both direct and indirect relationships exist but point in opposite directions. In this case, the relationship between exclusion and social reconnection behaviour is negative, but the inclusion of the being envied variable as a mediator creates a positive relationship (i.e., Study 2). Thus, our studies empirically demonstrate that being envied is carrying the influence of exclusion on to social reconnection behaviour. We believe our results provide some additional clarity to the mixed findings in prior research and suggest that social reconnection in response to exclusion is more likely to occur indirectly through specific cognitive variables, such as being envied.

Finally, our model integrates an individual dispositional variable, PA, as a first-stage moderator, enabling us to more clearly understand which employees are most likely to perceive themselves as the target of envy. The inclusion of PA not only provides a more nuanced account of the complexity with which employees respond to exclusion, completing our theoretical model, but it also builds on the growing line of research highlighting the interactive role that dispositional PA can have in the workplace. In particular, our work suggests that high PA may be associated with the tendency to engage in self-serving bias in the face of social mistreatment that, we argue, can manifest as perceptions of being envied by others. To our knowledge no other work has explored the exacerbating effect of PA between negative interpersonal situations such as workplace exclusion and perceptual outcomes such as being envied—nor have researchers highlighted its role across a set of mediated outcomes. While our results do suggest that PA exerts an influence over this set of variables, we believe it is prudent to note that the moderated indirect effect is small. Thus, additional research is needed to replicate and extend our work and lend credence to our results.

Practical implications

In addition, our findings have important practical implications. Though exclusion may generate positive behaviour such as ICBs, this effect doesn't guarantee that relationships between employees are harmonious or that excluded workers are psychologically resilient to this form of mistreatment. From a supervisor's perspective, he or she needs to understand why workers are engaging in high levels of positive behaviour. If the supervisor suspects it could be due to exclusion then actions should be taken to deter this type of behaviour. Exclusion clearly has a range of detrimental effects on workers, and companies risk losing valued employees to

the distress or turnover that can result from it. For this reason and due to the frequency of exclusionary behaviours in organizational settings (Williams, 2001) and the exclusion-related costs in terms of turnover, absenteeism, litigation, insurance, and diminished productivity (Sheehan, McCarthy, Barker, & Henderson, 2001), our research indicates that it is important for organizational leaders to understand what can be done to manage workplace exclusion. For example, cooperative, mutually beneficial behaviours can be achieved through such means as focused group discussions, reward practices, and training programmes. With respect to the latter, organizations can develop and implement organizational training programmes that assist workers in dealing with their negative feelings or relationships in collaborative and constructive ways (Glomb & Liao, 2003). Organizations should also reinforce expectations of cooperative behaviour and communication through formal performance management programmes or reward systems that foster a positive, supportive workplace culture. Furthermore, excluded workers who choose to deal with exclusion silently or with ingratiation or helping behaviours may go unnoticed by company leaders, thus, making it hard for organizations to appropriately intervene. Offering training programmes aimed at psychological resilience and implementing reporting mechanisms to deal with exclusion (and making employees aware of those) may be more effective means for coping with exclusion than requiring employees to rationalize their way through this undesirable experience.

Limitations and strengths

As any research, our studies have some limitations that warrant consideration. A primary objective of our work was to assess the extent to which the focal employees believed they engaged in behaviours that might facilitate relationship development or repair. For this reason, the data to support our research were self-reported and thus subject to potential inflation and common method effects. However, recent meta-analytic results show meaningful convergence between self and supervisor ratings of interpersonally directed citizenship behaviours (r_m = .30; Carpenter, Berry, & Houston, 2013). Accordingly, the authors note, "studies using self-ratings of OCB should not be summarily deemed methodologically deficient because of concerns over substantial inflation bias, common method bias, or socially desirable responding" (p. 19). With that said, we were still careful to minimize the concern of common method bias by testing our predictions temporally across two samples of working adults in different countries, thus bolstering the credibility of our findings. This, along with the utilization of samples of workers employed within a variety of industries and organizations, enhances the strength and generalizability of our results. However, to further challenge the robustness of our theoretical model,

additional research using complementary data sources, such as social network techniques, to capture exclusion, envy, and employee behaviour, is needed.

We also wish to note that the moderating effects of PA were small. While the CIs of our moderated mediation bootstrapped results did not encompass zero, the lower boundary of the CI range was around .01 for several of our outcomes. Though this effect is considered significant, we also think it is important to acknowledge that PA's influence on our indirect chain of relationships is not large. Thus, we encourage researchers to replicate and extend these findings across additional samples in order to bolster confidence in our findings.

Another potential limitation of our work is that the reverse causal model (i.e., that employees are envied by co-workers and then excluded as a result) is also plausible. Our primary goal was to study perceptual reactions to being excluded because, based on STUCC theory, we had strong reason to believe that certain perceptions (e.g., that one is the target of envy) could explain why excluded workers might engage in high levels of prosocial behaviour following their exclusion experience. This prediction is a meaningful departure from most prior studies of exclusion that typically focus on the direct (and generally negative) relationship between exclusion and prosocial behaviour without consideration of mediating mechanisms that might alter this relationship. Thus, our work is quite germane to the exclusion literature and provides some unique findings that can help move this body of literature forward in a novel direction.

However, beyond these theoretical reasons to support our extant model, there are methodological concerns that prohibit us from testing an alternative model with our data sets. We did not collect a measure of being envied at Time 1 in Study 1 (or a measure of exclusion at Time 2). Thus we cannot compute change variables to predict one or the other across time periods. Furthermore, as we note earlier, perceived exclusion is not necessarily the same as actual exclusion. Some employees may see themselves as widely excluded when, in fact, they may or may not be (and vice versa). Because we are theoretically interested in resulting perceptual and behavioural responses to exclusion we chose to measure exclusion—and being envied—as perceptual variables rather than objective ones. We did so because there is evidence to support the logic of "perception is reality" in terms of how individuals choose to think and behave in response to situational events that include interpersonal mistreatment such as exclusion. Thus, our measurement strategy was consistent with our theoretical model. However, reverse causality is also possible, and future work could further explore this possibility.

Future research

While this study offers an important first step in evaluating the role of cognitive reactions in response to exclusion in the workplace and the boundary conditions under which these relationships are strengthened, a number of interesting avenues for future research remain. For example, the model presented here could be expanded to include a broader array of mediating factors that are likely to influence reactions to exclusion in the workplace. According to Williams (2001, 2007), being excluded is likely to negatively impact the target's self-esteem, sense of control, and need for belonging. To date, no field research of which we are aware has been conducted to simultaneously examine these potential mediators and evaluate their influence on a range of employee outcomes. Thus, our knowledge is limited concerning whether or not (1) these variables significantly influence reactions to exclusion and if so, (2) which variables exert the strongest influence on these results, and (3) why and how such variables intervene among those relationships. Therefore, future research should examine the differential as well as cumulative effects of such mediators and their impact on employee and organizational outcomes.

In sum, the research model offered here is among the first to examine why and how workplace exclusion prompts a range of employee responses (i.e., helping behaviour, psychological health, and a desire to leave the company), revealing individuals' perceptions that they are targets of envy as an intervening mechanism in the exclusion process that manifests more strongly in the presence of higher PA. Thus, this study yields a more detailed and specific understanding of the process by which exclusion impacts worker outcomes. In addition, our results show that these effects extend across cultures to impact workers in similar ways. We hope that our studies serve as an initial step towards facilitating a greater understanding of this phenomenon within the context of work and encourage additional research in this area.

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