



“Will They Strike Back?” Shedding Light on the Tit-for-Tat Mechanism in Incivility and Bullying Research from a Latent Class Perspective

Guy Notelaers, Yariv Itzkovich, Hans De Witte, Tinne Vander Elst & Elfi Baillien

To cite this article: Guy Notelaers, Yariv Itzkovich, Hans De Witte, Tinne Vander Elst & Elfi Baillien (10 Mar 2026): “Will They Strike Back?” Shedding Light on the Tit-for-Tat Mechanism in Incivility and Bullying Research from a Latent Class Perspective, *Journal of Aggression, Maltreatment & Trauma*, DOI: [10.1080/10926771.2026.2640959](https://doi.org/10.1080/10926771.2026.2640959)

To link to this article: <https://doi.org/10.1080/10926771.2026.2640959>



© 2026 The Author(s). Published with license by Taylor & Francis Group, LLC.



Published online: 10 Mar 2026.



Submit your article to this journal [↗](#)



Article views: 337



View related articles [↗](#)



View Crossmark data [↗](#)

“Will They Strike Back?” Shedding Light on the Tit-for-Tat Mechanism in Incivility and Bullying Research from a Latent Class Perspective

Guy Notelaers^a, Yariv Itzkovich^b, Hans De Witte^c, Tinne Vander Elst^{d,e}, and Elfi Baillien^f

^aDepartment of Psychosocial Science, Faculty of Psychology, University of Bergen, Bergen, Norway;

^bHuman Resource Management Department, School of Social Sciences and Humanities, Kinneret

Academic College, Israel; ^cFaculty of Psychology, KU-Leuven, Belgium; ^dDepartment of Social

Psychology, Tilburg University, The Netherlands; ^eKnowledge, Information and Research Center, IDEWE

Group, Belgium; ^fDepartment of Work and Organization Studies, Faculty of Business and Economics, KU-Leuven, Belgium

ABSTRACT

This study aims to shed more light on the “tit-for-tat” mechanism in both workplace incivility and bullying by adopting a latent class analysis approach to an incivility sample from Israel ($n = 204$) and a bullying sample from Belgium ($n = 1352$). Our results yielded an asymmetrical tit-for-tat mechanism. In line with the central notion of powerlessness in bullying research, those who exposed others to negative social behaviors were more likely to get exposed to these types of behaviors themselves than those who were exposed would expose others. Notably, our results prompt a necessary debate about construct validity in both research streams; the latent classes in both samples appear to support the notion of incivility and bullying representing two ends of the psychological aggression continuum. Finally, our findings urge scholars to exercise caution when “labeling” and constructing a discourse. If bullying is downplayed as incivility, the severity of the situation may be underestimated. Conversely, if incivility is labeled bullying, the severity of the situation may be overestimated. Additionally, when investigating and labeling respondents as “instigators,” “perpetrators” or “bullies,” caution is warranted due to the absence of clear academic definitions. In sum, alongside research, our findings highlight the need for a debate on construct validity in this field.

ARTICLE HISTORY

Received 17 April 2025

Revised 24 November 2025

Accepted 12 February 2026

KEYWORDS

Bullying; construct validity; incivility; latent class modeling

Andersson and Pearson (1999) defined incivility as a type of low-intensity interpersonal deviant behavior with an ambiguous intent to harm the target. Unlike bullying, which is mainly characterized by frequent and consistent behavior (Notelaers, Van der Heijden, Hoel, et al., 2019), incivility does not require repetition and intent as mandatory criteria for the behavior to be

CONTACT Guy Notelaers  guy.notelaers@uib.no 

© 2026 The Author(s). Published with license by Taylor & Francis Group, LLC.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

labeled as such (Cortina et al., 2017). While considered mild interpersonal adverse behavior, incivility can escalate into more severe forms of negative interpersonal behavior (Andersson & Pearson, 1999; Cortina et al., 2017). Although this is conceived as a rare event, the escalation process has fascinated scholars. Concepts such as “tit-for-tat” (i.e., incivility instigation as a response to experienced incivility), the incivility spiral, and the secondary spiral (Andersson & Pearson, 1999; Blau & Andersson, 2005; Cortina et al., 2017) have emerged in the literature. In this regard, Cortina et al. (2017) emphasized the importance of studying the early stages of incivility and gaining new perspectives on the cycle of rudeness, noting the infrequency of the escalation process itself. A recent systematic review and meta-analysis by Park (2021) is a significant step forward in this direction. This review, which included 76 studies, shows that exposure to rudeness is the strongest predictor of instigating further rudeness, thereby shedding light on the escalation of incivility.

Recently, a similar tit-for-tat discourse has been presented in the research on workplace bullying. Vranjes et al. (2022) drew on the incivility spiral theory to investigate the relationship between experiencing and perpetrating bullying. Similarly, Özer an'sd Escartín (2023) systematic review revealed an average (unweighted) correlation of 0.43 ($SD = 0.12$) between exposure to bullying and exposing others to bullying across 22 studies. For many, this bully-victim relationship is viewed as a retaliatory interplay (e.g., Taris, 2022), where the victim becomes the bully and vice versa. In this line of bullying research, personal and work factors have also been examined to understand and differentiate exposure and instigation. For example, Vranjes et al. (2022) studied personal attributes. They found that individuals who proactively address their problems with an instrumental mind-set are more prone to retaliate. Spector et al. (2007) investigated the work environment and revealed that individuals in an aggressive environment are more likely to exhibit aggressive behavior.

Although workplace incivility and bullying are studied in separate research streams, they share many commonalities. Firstly, they both represent forms of workplace mistreatment characterized by disrespectful or rude social behaviors that do not necessarily display an intent to harm the receiver but may still cause damaging effects on well-being and health (Boudrias et al., 2021; Han et al., 2022). Additionally, both constructs share a retaliatory mechanism, assuming a linear relationship between targets and instigators or perpetrators; consequently, those who are exposed become instigators, and those who are targets become bullies.

While the existing empirical research on incivility and bullying is valuable, it only scratches the surface of this complex relationship, indicating a rich potential for further investigation (Nixon et al., 2021). The prevailing discourse has treated these social interactions as a simplified linear tit-for-tat exchange based solely on frequency (Notelaers et al., 2018, 2019). Previous research has chiefly studied their relationship using correlational and standard

linear regression techniques (Nixon et al., 2021). This statistical approach has certain assumptions that are crucial for ensuring statistical validity (Trochim, 2000), including the assumption of interval data (or ordinal response scales), the assumption of normal (or binormal) distributions, and the assumption of homogeneity of variance. However, in this line of research, response anchors often express the frequency of exposure using terms such as “never,” “occasionally,” “often” (“monthly”), “weekly,” and “always” (or “daily”). Strictly speaking, these response anchors do not constitute an interval scale and should instead be treated as ordinal (Hershcovis & Reich, 2013) or perhaps even as counts. This presents an exciting opportunity for scholars and researchers in the field to contribute to a more nuanced understanding of workplace incivility and bullying, sparking further investigation and debate.

Incivility and bullying are not considered “normal” social behaviors and are often not normally distributed (Notelaers & Van der Heijden, 2019). Assuming these phenomena follow a negative binomial distribution may be more reasonable. Beyond concerns regarding the statistical validity of this relationship, another concern pertains to the measurement model. The need for a more nuanced measurement model is crucial, as summing or averaging scores assumes that all items carry equal weight and that all reported incidents are equally severe and interpretable (Hershcovis & Reich, 2013; Notelaers et al., 2011). It is reasonable to assume that different types of behaviors may be more common than others (cf. item popularity) and that some items may differentiate better or worse between exposed/non-exposed or between instigators/non-instigators (cf. discriminatory power of items). As a result, the correlation between “being exposed” and “exposure to” may be an invalid statistic, leading to invalid conclusions. Put differently, at this stage of research, we lack reliable insights into the tit-for-tat mechanisms of workplace incivility and bullying, highlighting the limitations of the current research and the need for improvement and advancement. As a result, using anchor scales to categorize individuals as exposed and instigators may compromise the construct validity and bias the relationship between exposure and instigation under study.

In response to these significant concerns, the current study’s overarching aim is to investigate the tit-for-tat mechanism in incivility and bullying, employing a person-centered approach through latent class analysis (Magidson & Vermunt, 2002; Vermunt & Magidson, 2002). LCA is a statistical procedure used to identify qualitatively different subgroups within populations that often share specific outward characteristics (Weller et al., 2020). In contrast to variable-centered approaches, LCA is a person-oriented approach. The assumption underlying LCA is that membership in unobserved groups (or classes) can be explained by response patterns across items. In more technical terms, LCA detects latent (or unobserved) heterogeneity in samples (Hagenaars & McCutcheon, 2002). According to Weller et al. (2020), it is

a special case of person-centered mixture modeling that identifies latent subpopulations within a sample based on patterns of responses to observed variables (Muthén & Muthén, 2000). It is beneficial when it is statistically reasonable to assume there are unobserved differences among the observations. This implies that not all observations follow the same distribution, such as a normal distribution assumed in traditional statistical approaches. The assumption underlying LCA is that membership in unobserved classes can cause or explain patterns of scores across these survey questions.

Prior research on workplace bullying utilized LCA to estimate exposure to workplace bullying, distinguishing between groups of respondents (i.e., latent classes) that differ with respect to the type of the level of exposure to negative behaviors (Notelaers et al., 2011). Mazzone (2022) identified a tit-for-tat mechanism when he employed LCA to investigate the role of empathy in witnessing, experiencing, and exposing others to bullying, but did not measure incivility. We believe that first investigating whether heterogeneity exists in terms of latent classes of exposure and exposing others to incivility and bullying and secondly studying their relationships can shed more light and allow us to gain a deeper understanding of the tit-for-tat mechanism that is traditionally summarized in a singular statistic like a correlation or U . Studying the cross-tabulations in-depth, instead of summarizing the overall association between rows and columns, may provide a more profound understanding of Cortina et al. (2017) claim concerning the rarity of incivility escalation. To this end, we first investigate the relationship between different exposure classes and classes of exposing others in two subsamples. First, we investigate incivility in an Israeli sample (i.e., study 1). Next, we reanalyze bullying in a Flemish sample (i.e., Study 2) from a person-centered perspective, rather than a variable-centered one.

Study 1

Sample

As part of a 2016 research project, we conducted a comprehensive employee survey across various organizations in Israel. Following approval from the participating organizations' Human Resources departments and the Institutional Review Board (IRB), the students distributed the questionnaires in person. Participants were assured of anonymity, with no personally identifiable information collected. Voluntary participation was reassured.

Initially, 381 questionnaires were collected. Twenty-seven questionnaires were removed due to missing more than 30% of the answers, resulting in 354 valid responses. For this study, participants holding managerial positions were excluded, leaving a final sample of 204 employees. The sample consisted of 204 Israeli subordinates working in various private (39.7%) and public sector

(55.9%) organizations in Israel. The sample included 35.8% males and 64.2% females in the second part, with a mean age of 37.69 years ($SD = 11.63$). The participants' average tenure at work was 7.88 years ($SD = 7.97$).

Measures

The Work Incivility Scale (WIS) was used to measure exposure to incivility. The WIS is a 7-item scale developed by Cortina et al. (2001) designed to measure the perceived frequency of incivility. Participants were asked to indicate the extent to which they had encountered situations such as “Made demeaning or derogatory remarks about you?” or “Put you down or was condescending to you?” by their supervisors or coworkers during the past year. Exposing others to incivility was assessed using a reformulated version of the WIS, which tapped the extent to which participants had acted uncivilly toward any of their coworkers in the past year. A sample item was “Put him down or was condescending to him?” Participants rated both measures, ranging from 1 (*nearly never*) to 5 (*most of the time*).

Results

Identification of the appropriate measurement model for incivility

The Latent Class Cluster (LCC) models alongside the Latent Class Exploratory Factor (LCEF) and Latent Class Confirmatory Factor (LCCF) models were estimated in Latent Gold 6.0 (Vermunt & Magidson, 2002), assuming ordinal indicators. The BIC in Table 1 favored the factor models, as their BICs were lower, given fewer degrees of freedom. When comparing the LCEF with the LCCF models, the BIC favored the LCCF slightly. According to the BIC, the LCCF model of five classes had the best fit. However, this model yielded two tiny classes with only a handful of respondents. Because these classes comprised so few participants and added little meaningful distinction beyond the other classes, from a content perspective, it was more appropriate to conclude that the 2-factor model, with each having four latent classes, best fitted the

Table 1. Fit statistics for exposure and exposing to incivility.

	BIC(LL)	Npar	Max. BVR	Class. Err.	Entropy R ²
1-LCC	5689.5	156	166.8	0	1
...					
5-LCC	4882.1	96	9.8	0.06	0.89
6-LCC	4903.2	81	7.3	0.06	0.90
7-LCC	4913.5	66	7.1	0.05	0.92
LCEF 4 – 4	4689.0	121	4.7	0.15	0.69
LCCF 4 – 4	4643.9	135	9.0	0.12	0.76
LCCF 5 – 5	4614.8	133	7.8	0.09	0.80

Legend: BIC(LL): Bayesian Information Criterion (Log Likelihood). Npar: number of parameters. Max. BVR: highest bivariate residual. Class. Err.: Total proportion of Adjacent Classification Errors. Entropy R²: a measure of reliability. The number before LC or after LC represents the number of classes or levels.

data. This model also yielded a nonsignificant p -value ($p = .09$) when bootstrapping L^2 , indicating a good statistical fit to the data. The reliability (standard R^2) exceeded 0.70, and the total adjacent classification error was less than 14%, indicating that the classification was reliable.

Interpretation of the latent classes

The conditional probabilities reveal the precise meaning of the latent classes (LC) of the two factors. To express our results economically, we calculated the average conditional probabilities. These represent the average of the conditional probabilities (CP) of endorsing a response category across all indicators given the class membership.

Table 2 presents the findings concerning exposure to incivility from the perspective of the receivers, with the second column pointing to the “no incivility” respondents (31% of the sample). Their average response to the negative social behaviors was “never” as illustrated by the average CP (ACP) of 93% to respond “nearly never” over all items. The second LC refers to respondents for whom their average response over all items was between “nearly never” and “rarely ever.” Their ACP to respond “nearly never” was 68%, whereas that of “rarely ever” was 28%. We labeled this LC (29%) as the LC that reported experiencing incivility rarely. The third LC (31%) exhibited an ACP of “rarely ever” of 42% and the “sometimes” response was nearly 30%. Like in the previous LC’s, the ACP to respond “often” or “most of the time” was nearly zero. We labeled this LC as “almost occasionally” experiencing incivility. The respondents in the last LC (9%) had an ACP of 46% to experience incivility items sometimes. However, the ACP to experience these items often or more regularly, was 36%. Hence, we labeled this LC as experiencing “more than occasionally” incivility behaviors.

Table 3 displays the ACP relating to exposing others to these indicators of incivility. The first LC (41%) had an ACP of .94 for “never” exposing others to

Table 2. Latent classes of exposure to incivility.

Response categories	Never	Nearly never	Rarely ever	More than occasionally
Nearly never	0.93	0.68	0.23	0.02
Rarely ever	0.07	0.28	0.42	0.14
Sometimes	0.00	0.04	0.30	0.46
Often	0	0.00	0.05	0.36
Most of the time	0	0	0	0.02

Table 3. Latent classes of exposing (others) to incivility.

Response categories	Never	Nearly never	Rarely ever	Occasionally
Nearly never	0.94	0.73	0.27	0.03
Rarely ever	0.06	0.26	0.55	0.26
Sometimes	0	0.02	0.17	0.54
Often	0	0	0.01	0.15
Most of the time	0	0	0	0.02

Table 4. Relationship between exposure and exposing to incivility items.

Incivility		EXPOSING TO				Total
		Never	Nearly never	Rarely ever	Occasionally	
E	Never	23.6%	5.9%	2.5%	0.5%	32.5%
X	Nearly never	10.3%	10.8%	5.9%	0.5%	27.6%
P	Rarely ever	7.4%	13.3%	8.9%	1.5%	31.0%
O	More than occasionally	0.5%	2.0%	3.9%	2.5%	8.9%
S						
U						
R						
E						
Total		41.9%	32.0%	21.2%	4.9%	100.0%

these negative social behaviors. An ACP also characterized the second LC (32%) as responding “never” with a value of 0.73. Their ACP to respond “rarely ever” was 24%. We labeled this LC as those who very rarely ever expose others. The modus response of the third LC was “rarely ever.” As in the previous latent classes, the ACP to respond “often” or “most of the time” was nearly zero. Consequently, we labeled this LC (22%) as “rarely ever.” The last LC had an ACP for “sometimes” of 55%. However, the average CP to portray these items was 17% or more often. Hence, we labeled this latent class as portraying “occasionally” incivility behaviors. Approximately one out of twenty respondents resided in this latent class.

Exposure to and exposure of others to incivility were moderately related ($r = .48$). The findings presented in Table 4 on the relationships between the latent classes of exposure and exposure of others to incivility allow us to further elaborate on the tit-for-tat mechanism. The cross-tabulation in Table 4 shows neither a linear nor a symmetrical relationship between exposure and exposing others to incivility. The percentages below the diagonal are higher than those above the diagonal, indicating an asymmetry: individuals who are exposed to incivility are less likely to expose others to incivility than vice versa. When comparing occasional exposure with occasional exposure, rarely with rarely, and so forth, no linear pattern emerges from these comparisons.

Study 1 discussion

Our findings revealed four latent classes for both exposure to incivility and exposure of others to incivility. Regarding exposure to incivility, the second and third classes appear to align with the theoretical definition of incivility, characterized by a low intensity of negative acts due to their infrequent exposure patterns (e.g., “nearly never” and “rarely ever” latent classes). Conversely, the fourth category, characterized by frequent exposure to incivility, may indicate encounters of high intensity that extend beyond the concept of typical incivility (Andersson & Pearson, 1999). Building on Schilpzand et al.

(2016) argument equating frequency with intensity, individuals experiencing frequent rudeness should not necessarily be classified as experiencing prototypical incivility. As incivility and bullying are often viewed as opposing points on the continuum of workplace mistreatment (Nixon et al., 2021), the high frequency of reported incivility indicators in the fourth class likely represents the more extreme end of this continuum.

Examining the relationship between exposure to incivility and the propensity to expose others to it, our findings indicate that individuals exposed to infrequent incivility (i.e., the two middle classes) are more likely to instigate infrequent incivility compared to those frequently exposed, suggesting a non-linear relationship. We identified an asymmetrical relationship where individuals experiencing a certain level of rudeness are less likely to reciprocate at the same level but more likely to exhibit lower levels of incivility. This suggests responses are not direct retaliation. Additionally, our findings indicate that only 58% of the sample engages in incivility. Among these, the majority (53%) exhibit disrespectful behavior toward others only occasionally, and 9% have never experienced incivility themselves. These individuals do not participate in a tit-for-tat process but rather exhibit incivility for reasons other than retaliation.

The prevailing research discourse on the link between exposure and exposing others to is rooted in the incivility spiral theory, positing that uncivil behavior can trigger reciprocal responses or displacement of retaliation onto unrelated parties (Park, 2021). While experiencing incivility strongly predicts instigation, a data-driven explanation for the purported rarity of escalation, as claimed by Cortina et al. (2017), remains elusive. Contrary to expectations based on strong correlations between exposure to incivility and exposure to others (Park, 2021; Rosen et al., 2016), our findings reveal an asymmetric relationship, where the majority of those exposed to incivility do not reciprocate in kind. This asymmetric finding provides empirical support for Cortina's assertion regarding the rarity of escalation based on initial tit-for-tat dynamics in the incivility spiral.

Study 2

Sample

For Study 2, we relied on secondary data analysis because the entire panel data had already been published elsewhere. Since the authors employed a variable-centered approach in their study, we will offer a contrasting perspective. This approach, which involved reanalyzing the data, did not pose research ethical concerns, even though both exposing others and being exposed had been investigated earlier. Previously the “traditional” statistical toolkit was used. This toolkit cannot deal with the level of skewness and kurtosis present (Li, 2016). In collaboration with a Human Resources (HR) magazine, data were

collected from a diverse group of Flemish (Dutch-speaking) employees in October and November 2012. Participants accessed the questionnaire through an open link. We obtained 2046 sampled employees aged 18–65 years. For this study, we omitted employees who hold managerial positions with responsibility over others, as they have formal power over others, an essential feature of the phenomenon under investigation (see, for example, of the retained 1352 subordinates 77.7% worked in the private sector (77.7%) and 22.3% in the public sector (22.3%)). The average age of respondents was 38.03 years ($SD = 11.50$), with a majority being female (64.3%). Blue-collar workers accounted for 6.8% of the sample, white-collar workers for 93.2%. The majority of respondents (91.0%) had permanent (open-ended) contracts, and a significant portion worked full time (82.5%).

Measures

To assess exposure to workplace bullying, participants completed the Short Negative Acts Questionnaire (S-NAQ; Notelaers, Van der Heijden, Hoel, et al., 2019). Respondents were asked to report the frequency of nine negative behaviors directed at them by colleagues over the previous 6 months. For exposing others to workplace bullying behaviors, the S-NAQ was reformulated based on the work by Baillien et al. (2011) and Escartín et al. (2012). This scale assessed the frequency with which respondents engaged in similar negative behaviors toward others over the past 6 months. Responses also ranged from (1) “Never” to (5) “Always/daily.”

Results

Identification of the appropriate measurement model for workplace bullying

The BIC favors the LCF models as their BIC values were lower. When comparing exploratory (LCEF) with confirmatory (LCCF) factor models, BIC values slightly favored the exploratory models (see Table 5). However, for the exploratory model with each factor consisting of five classes, it was not easy to interpret. The meaning of the factors was unclear, and the factor loadings were relatively low ($<.4$) due to the large number of cross-loadings, which argues against using the exploratory model. The estimation of confirmatory factor models with items loading only on their respective factor yielded a higher BIC; however, the factor loadings, except for item 9 of the actor perspective, were all above 0.5. This model fit was deemed good, as indicated by the bootstrap L2 ($p = .226$).

The standard R^2 measure was above .80, indicating that the classification was reliable. The total erroneous adjacent classification error was 20% owing to the relatively small distance between the first and the second classes and

Table 5. Fit statistics for receiving and exposing others to negative acts.

	BIC(LL)	Npar	Max. BVR	Class. Err.	Entropy R ²
1-LCC	43,847.7	72	1482.5	0	1
...					
6-LCC	37,346.4	167	30.8	0.121	0.81
7-LCC	37,316.9	186	30.7	0.146	0.79
8-LCC	37,308.6	205	29.7	0.154	0.79
9-LCC	37,330.0	224	30.7	0.151	0.79
LCEF 4 - 4	36,779.1	115	24.3	0.214	0.62
LCEF 5 - 5	36,646.8	117	26.7	0.161	0.66
LCCF 4 - 4	36,972.2	97	46.5	0.123	0.77
LCCF 5 - 5	36,744.1	99	37.5	0.185	0.70

Legend: BIC(LL): Bayesian Information Criterion (Log Likelihood). Npar: number of parameters. Max. BVR: highest bivariate residual. Class. Err.: Total proportion of Adjacent Classification Errors. Entropy R²: a measure of reliability. The number before LC or after LC represents the number of classes or levels.

between the second and the third classes. The correlation between both factors was strong ($r = .75$).

Meaning of the latent classes

Tables 6 and 7 display the average conditional probabilities (ACPs) across all indicators of exposure to and exposure of others to workplace bullying, respectively. From the receiving end, in the first LC (23% of the sample), respondents had an ACP of 95% to indicate “never” across all items of the SNAQ. These probabilities suggest that these individuals did not experience negative behaviors. The second LC (12%) also showed a high ACP for “never”; yet notably lower probabilities were observed for specific negative acts: 0.66 for “withholding information,” 0.56 for “gossip,” and 0.72 for “persistent criticism of your work.” This class may thus experience, to a limited extent, work-related negative encounters. In the third LC (35%), there was a 60% chance of responding “never” to the SNAQ items. However, there was a notable probability (at least 30%) of responding “rarely” or more often to all items

Table 6. Latent classes of exposure to negative acts.

Response categories	Not exposed	v lwc	Ine	Almost occasionally	Target of bullying
Never	0.94	0.84	0.61	0.26	0.03
Rarely/Less than once a month	0.05	0.15	0.3	0.4	0.15
Sometimes/Monthly	0	0.01	0.07	0.23	0.29
Often/Weekly	0	0	0.01	0.09	0.34
Always/Daily	0	0	0	0.02	0.19

Legend: v lwc: very rarely limited work-related negative encounters; Ine: limited negative encounters.

Table 7. Latent classes of exposing others to negative acts.

Response categories	Never	Very rarely gossip	Rarely gossip	Rarely	Bullies
Never	0.93	0.85	0.66	0.31	0.03
Rarely/Less than once a month	0.06	0.14	0.27	0.39	0.16
Sometimes/Monthly	0	0.02	0.06	0.22	0.34
Often/Weekly	0	0	0.01	0.07	0.32
Always/Daily	0	0	0	0.01	0.14

Table 8. Relationship between receiving and exposing to negative acts.

		EXPOSING OTHERS TO NEGATIVE ACTS					
		never at all	very rarely gossip	rarely gossip	Rarely	Bullies	Total
E	Not	22.4%	2.0%	1.3%			25.7%
X	v lwc	4.0%	1.2%	1.8%	0.2%		7.2%
P	lne	2.6%	6.8%	26.2%	2.0%		37.6%
O	Almost occasionally		0.9%	14.8%	8.3%	0.4%	24.4%
S	Target			2.2%	2.3%	0.7%	5.2%
U							
R							
E							
	Total	29.0%	10.9%	46.2%	12.8%	1.1%	100.0%

Legend: v lwc: very rarely limited work-related negative encounters; lne: limited negative encounters.

except those related to social isolation. We propose labeling this class as the “limited negative encounters” class. The fourth class (24%) had a lower CP of responding “never,” but higher probabilities of responding “rarely,” “sometimes,” or “often” (0.34). These probabilities indicate a relatively high likelihood of repeated exposure (monthly or more rarely). Hence, the label “almost occasional” bullied. Finally, the fifth LC was characterized by an approximately 80% probability of having been exposed monthly or more often to the negative acts. According to the definition of workplace bullying, we labeled this class as “targets” or bullied.

Table 7 portrays the perpetrator perspective. The first LC (26%) was characterized by an ACP of 93% to respond “never” to engage in negative acts. The following two classes were characterized by a CP to rarely engage in gossip (about work and personal life). For both classes, other negative acts were also rarely or not undertaken. Whereas the second class had a 44% CP to rarely “gossip”; the third class had an 83% CP to rarely or more often “gossip”. Notably, 43% of this latent class gossiped rarely, whereas 16% gossiped very rarely. The fourth LC had a CP to respond “rarely” or “sometimes,” which accounted for 51%. With a 33% chance of responding “never” to having exposed others to other negative acts, we labeled this class (14%) as “rarely” exposing others. In contrast, the fifth LC showed an ACP response rate of sometimes, often, and always, totaling 80%. They are consistently exposing others to negative behaviors. This suggests that they are being bullies (1%). The findings presented in Table 8 provide further insights into the tit-for-tat mechanism.

Like in the previous incivility study, the results for the bullying study revealed an asymmetrical relationship between exposure and exposing others to negative social acts. The percentages below the diagonal were twice as high as those above the diagonal. This asymmetry indicates that individuals who experienced bullying were less likely to expose others to negative acts compared to those who were exposing others to negative acts.

Study 2 discussion

The latent classes identified in being exposed to workplace bullying align with prior research findings, which classify respondents based on the intensity and nature of reported negative behaviors (cf. Notelaers, 2011). First, two distinct latent classes emerged among targets, aligning with the operational definition of workplace bullying characterized by systematic and repeated negative acts. The “almost occasionally bullied” class experiences these acts less frequently, likely on a monthly or less frequent basis, whereas the “severe target” class reports more frequent exposure. They have a conditional probability of 0.55 to report exposure at least weekly, which aligns with the stricter definitions of workplace bullying (Einarsen et al., 2011; Notelaers et al., 2018). Second, some classes do not fit the bullying categorization. One-fourth of the sample did not report any bullying behaviors, and two other classes were unlikely to be exposed to workplace bullying, even rarely.

In terms of exposing others to negative acts, five latent classes were identified. The second and third classes, comprising over 60% of the sample, primarily engage in gossiping. Here, infrequent engagement in spreading gossip plays a central role. The fourth class, labeled as “rarely,” also shows notable engagement in gossiping, with a conditional probability of .63 to endorse monthly or more frequent gossiping, while other negative acts were less frequent (below .30). The fifth latent class, labeled as “more than occasionally exposing others to negative behavior,” regularly engages in all types of negative behaviors monthly or more often. On the surface, this class represents the bully group. Our findings suggest that, in this large and heterogeneous Flemish sample, only approximately 1% could be classified as bullies, as their regular engagement in these behaviors implies an intentional intent. This estimate may underestimate the actual proportion due to potential biases in reporting wrongdoing, even in anonymous questionnaires.

Our results indicate a nonsymmetrical tit-for-tat mechanism. Those who expose others were more likely to report severe bullying than severe targets were likely to expose others to these behaviors. This asymmetrical pattern was also evident at lower levels of exposure and engagement in negative acts. Those who rarely engaged in negative acts were more likely to be bullied than those occasionally bullied were to expose others to negative acts. Thus, a target is not necessarily a bully, whereas a bully is highly likely to have been a target. This finding aligns with the definition and description of bullying processes, emphasizing the disempowerment of the bullied and the imbalance of power (Einarsen et al., 2011). Surprisingly, no one from the bully class reported experiencing few or no negative behaviors, and no targets reported minimal or no engagement in exposing others to negative behaviors. These findings will be further discussed in the general discussion section. In summary, the tit-for-tat pattern observed was asymmetrical, suggesting the existence of spirals

primarily from the perspective of those who engage or expose others to negative social behavior.

General discussion

We aimed to delve deeper into the tit-for-tat mechanism previously explored in both incivility and bullying research using a variable-centered methodology. We used a latent class approach to address potential heterogeneity in these negative social acts, identifying latent classes defined by the type and frequency of reported behaviors. As such, this study addresses Nixon et al. (2021) call for a more nuanced examination of the tit-for-tat mechanism in both incivility and bullying. While these authors examined the connections between incivility and bullying using LCC, their study used a variable-centered approach, which may not capture the complexity of tit-for-tat relationships, leaving room for further investigation into this critical aspect. In both Study 1 (incivility sample) and Study 2 (bullying sample), a 2-factor latent class solution, which is a hybrid of variable- and person-centered approaches (Lubke, 2005; Masyn, 2013), showed the most appropriate fit. This approach confirms that exposure to versus exposing others to these acts are two related but distinguishable phenomena. Interestingly, the latent factors identified in both the incivility and bullying samples displayed notable similarities, with the average conditional probabilities of the latent classes reflecting strikingly similar patterns, particularly in terms of exposure. Regarding our main objective, we found evidence for a tit-for-tat mechanism of an asymmetrical nature in both samples. While the main discourse on escalation assumes that greater exposure to incivility and bullying increases the likelihood of retaliation (e.g., Hauge et al., 2009; Park, 2021), our findings did not support a symmetrical tit-for-tat mechanism. Being an instigator appears to have a stronger link to victimization than victimization does to instigation. In other words, the asymmetrical relationship seems to resemble a power asymmetry – which typifies bullying – where one renders unable to defend him or herself, at least not in kind (Einarsen et al., 2011; Nielsen et al., 2022; Rosander & Nielsen, 2023).

Conservation of Resources theory (COR; Hobfoll et al., 2018) offers a succinct account of the asymmetry: reactions depend on available resources. In our context, resource access shapes how employees respond to incivility or bullying. Retaliating by exposing others is resource-driven and serves two aims – regulating distress from mistreatment (Fida et al., 2015) and restoring status and self-esteem (Hobfoll et al., 2018; Wang et al., 2018). Yet retaliation itself consumes resources (Hobfoll, 2018), which erode as exposure rises in incivility (Itzkovich & Dolev, 2021) and bullying (Rosander & Nielsen, 2023). Accordingly, severe exposure often yields withdrawal (depressed mood, turnover intentions) rather than mirroring (Lecrubier, 2006; Nielsen et al., 2022;

Robinson et al., 2020; Semmer et al., 2020). This resource lens helps explain the asymmetry we observed: as exposure intensifies, capacity to retaliate diminishes even as motivation may rise. Hence, reciprocity clusters at moderate exposure, where resources are sufficient to act, and weakens at the highest levels. Still, some do retaliate despite scarcity – consistent with COR’s assertion that “when people’s resources are stretched or depleted, they enter a defensive mode to protect themselves, often leading to defensive, aggressive, and irrational behavior (Hobfoll et al., 2018, p. 106).”

Interestingly, our study also revealed that some individuals expose others to negative behaviors despite not having been previously exposed to incivility themselves. This may align with Özer and Escartín (2023) suggestion that such behaviors can arise from observational learning in unrelated past experiences. However, our data show this group to be significantly smaller compared to those who retaliated after being exposed.

When examining the latent-class structure underlying tit-for-tat, we found strong cross-sample correspondence – especially for exposure to negative acts. In the incivility sample, LCA yielded four classes: a no-incivility baseline, a low/ambiguous exposure class, a clear-incivility class consistent with the construct’s theoretical endpoint, and a high-frequency class whose conditional probabilities resemble bullying more than incivility. The bullying sample showed a mirror pattern: between the baseline and the class reflecting occasional bullying, several intermediate classes reported infrequent, sometimes ambiguous behaviors that align more closely with incivility. Conditional probabilities, therefore, place the boundary between constructs at the higher end of incivility and the lower end of bullying, with partial overlap around low-frequency, ambiguous acts.

In light of the interrelationship between incivility and bullying, Nixon and colleagues (2021) proposed modeling a general factor of psychological mistreatment to encompass both constructs. We argue that a process perspective offers an alternative approach that can more optimally address the authors’ idea that incivility and bullying represent opposite poles on a “psychological mistreatment continuum” (Nixon et al., 2022). Using a latent class approach, our findings challenge the existence of a strict continuum by revealing qualitatively distinct subpopulations for incivility and bullying that align with the stage-wise bullying process described by Einarsen et al. (2011). In the early phase of bullying, negative social behaviors are indirect and discrete, making exposure difficult to pinpoint (Björkqvist, 1992). This aligns with our findings on the “limited negative work encounters” and “limited negative encounters” classes, where at most low-frequency behaviors (occurring less than monthly) were reported. Such infrequent behaviors are likely ambiguous and challenging to identify as mistreatment. In the next stage, more direct negative social acts emerge, including social exclusion, public humiliation, and silencing. This corresponds to the “almost occasionally bullied” class, in which all negative

acts were more likely to be reported more frequently. Finally, in the “severe target” class, all types of negative behaviors were likely to be regularly reported. This aligns with the pervasive and frequent experiences typical of bullying victims, as evidenced by high probabilities of reporting behaviors such as shouting and being made a laughingstock – behaviors absent or unlikely in earlier classes.

Viewed as a process, incivility plausibly marks the early phase of bullying, and the highest incivility class aligns with bullying’s final stage. The near-identical conditional probabilities for frequent exposure in the top incivility and bullying classes (≈ 0.85) underscore substantive overlap. Because both instruments assess exposure to negative social behaviors, they capture the bullying process rather than strict opposites on a “psychological mistreatment continuum.” Still, the labels remain theoretically distinct and used together, provide a more nuanced account of workplace mistreatment.

When measuring exposing others to negative behaviors, the overlap between incivility and bullying is less pronounced, except in the two last latent classes. Interestingly, one item seems to stand out as an act that drives the divergence between incivility and bullying. That item is the “gossiping” about others. The item resulted in two gossiping classes because that item and its (rather low) frequency defined their meaning. Gossip is a social interaction in which individuals discuss absent others, sharing positive or negative evaluations about them during informal social interactions (Foster, 2004; Martinescu et al., 2019; Wax et al., 2022). As both severe targets and occasionally bullied respondents are not necessarily cut off from social support of both supervisors and colleagues (Baillien & Notelaers, 2023), the emergence of these classes and the overlap between exposure to and exposing others to bullying may be partly due to gossip to obtain informational, emotional, and evaluative support. While gossip can have positive instrumental purposes and outcomes for those involved, it can also have negative consequences. Negative evaluative information about others may mobilize negative resources among those taking part in this social interaction. It can intensify negative feelings and thoughts among workers in the workplace (Şantaş et al., 2018) and elicit negative social behavior, which is, in turn, met with instrumental behavioral responses aimed at protecting the resources of gossip recipients (Cheng et al., 2022).

A major challenge in interpreting our findings is the field’s unclear label for the actor who enacts negative behavior. Bullying studies often use perpetrator, a term that in ordinary usage denotes criminal wrongdoing (Cambridge-, Oxford-, Merriam-Webster Dictionary), which can overstate the nature or severity of many workplace acts. Incivility research often focuses on the instigator, defined as someone who initiates an action – often negative – and, according to Merriam-Webster, one who stirs public feelings, especially discontent (Cambridge Dictionary; Oxford Dictionary; Merriam-Webster Dictionary). We view the instigator as more suitable for two reasons. First, it

marks agency without presuming intent. Because intent is difficult to establish empirically and is not essential to defining workplace bullying (Einarsen et al., 2011), prematurely labeling someone a perpetrator risks misclassification; even when repeated interactions suggest intent, proving it – and its legal implications – requires careful investigation (Notelaers, 2011; Einarsen, 2007, 2016). Second, the mobilization nuance in the instigator aligns with early “mobbing” accounts of collective aggression (Heinemann, 1972). The term is not perfect, but it avoids automatic criminalization and underscores the need for shared, precise definitions.

Limitations and future research

Our findings highlight a specific measurement concern arising from the overlap between several items in Cortina et al. (2001) incivility measure and those in Einarsen and Raknes (1997) bullying measure. This overlap raises the possibility that the highest-intensity class identified in the incivility samples may include individuals who are actually victims of bullying, given their frequent exposure to negative social behaviors (see Notelaers, Van der Heijden, Hoel, et al., 2019). Conversely, this overlap may also suggest that some of the bullying classes (i.e., the second, third, and possibly fourth classes of negative acts), which involve infrequent exposure to negative acts, may not represent bullying victims (Notelaers, Van der Heijden, Hoel, et al., 2019), but rather targets of incivility. Even though we could not analyze simultaneously incivility and bullying, we speculate that the overlap between the operationalizations (measures) of both is so high that a confirmatory LC approach can result in one latent variable. Future research should consider incorporating self-labeling measurement approaches, in which, after reading a definition, respondents indicate the extent to which they have been exposed to or expose others to it. Even though these are likely to be biased, they offer, when carefully defined response anchors for each construct, the opportunity to further explore the relationships between incivility and bullying, as well as targets and instigators. Future research could also develop distinct measures that allow for the simultaneous modeling of both scales. The absence of such measures has limited our ability to fully explore these dynamics, leading us to partially rely on a re-analysis of data from an already published article to investigate the tit-for-tat mechanism.

Our findings are based solely on subordinate samples, limiting their generalizability. We excluded supervisors from the sample due to their formal power, which makes them less likely to be exposed to negative social behaviors and more likely to expose others to such behaviors. While we could have controlled for having a supervisory position, we chose not to, given a more fundamental question needing to be thoroughly addressed first: are both measures invariant across these groups? Moreover, can we assume, given the

role of power in defining bullying, that both constructs develop in the same manner across the two groups (Nielsen et al., 2022). The latter could only be scrutinized in the bullying sample because the sample size of incivility was too small. Post-hoc analysis of the bullying sample showed high bivariate residuals for several items for being exposed (i.e., withholding information and gossip) and exposing others to (i.e., withholding information, reminders about mistakes, devaluating work efforts) indicating differential item functioning that reminds of the debate that some items are also tapping into the managerial prerogative than rather bullying alone (Notelaers, Van der Heijden, Hoel, et al., 2019). The post-hoc analysis suggests that the measurement may not capture the construct in the same manner across supervisors and subordinates. Therefore, future research would benefit from investigating in depth whether the constructs have the same meaning across subordinates and leaders.

While our findings contribute to the understanding of the tit-for-tat mechanism for both incivility and bullying, the cross-sectional nature of our samples does not allow us to separate our study variables over time and study within-person lagged effects. Our findings revealed similar patterns in incivility and bullying, suggesting that these measures effectively capture both. In line with the theoretical definitions that distinguish incivility from bullying based on frequency, we propose that incivility can be conceived as an early phase in the bullying process. This assumption aligns with the incivility spiral theory (Andersson & Pearson, 1999) and Björkqvist's (1992) description of the onset of the bullying process. Future longitudinal person-centered research is needed to explore how incivility and bullying develop over time and to provide empirical support for this process perspective. Such research should spend sufficient attention to the nomological network, thereby concentrating on convergent and discriminant validity. While doing so, tapping into the motivational, stress, and health consequences is worthwhile because both literatures have strong expectations about which and to what extent consequences are associated with both. Researchers must also account for the time required for these phenomena to develop, ensuring that the study's duration and intervals are appropriate to capture the true progression of incivility and bullying over time. Such a design would also allow for investigating a dual process latent transition model (Vander Elst et al., 2018) can shed light on the conditions of reciprocity, including the tit-for-that mechanism, because such an analytical person-centered approach can shed light on the type and level of exposure or engagement in such behaviors and the possible responses later on.

Practical implications

The practical stakes of these distinctions are substantial. Treating incivility and bullying as interchangeable risks leads to misclassification. Downplaying bullying as “high incivility” can delay protections and case handling, while

inflating incivility to “bullying” may overstate conflict and misdirect scarce resources. A class-informed perspective suggests differentiated responses (Notelaers et al., 2006). For low-exposure classes – where conditional reciprocity is more prevalent – interventions focused on civility, feedback skills, and norm setting may be effective, although their effectiveness requires further investigation (Leake et al., 2025). For high-exposure classes, responses should prioritize protection and resource restoration, and not exhortations to “stand up for oneself.” Careful inquiry and thorough investigation are warranted (Einarsen et al., 2016). For assessment practice, we recommend complementing overall scores, such as correlations, with profile summaries and reporting the joint distribution of exposure and instigation classes to inform tailored intervention planning.

Conclusion

We aimed to thoroughly study the tit-for-tat mechanism in both incivility and bullying behaviors, using a latent class modeling approach to account for the ordinal nature and non-normal distributions of our measures. Four and five latent classes of exposure to and perpetration of incivility and negative acts, respectively, were identified. A strong similarity in the interpretation of these latent classes was found across the incivility and bullying samples. Unexpectedly, our results supported an asymmetrical, non-linear tit-for-tat mechanism, where exposing others to incivility or bullying was more strongly associated with one’s own exposure than the reverse. Our results challenge the validity of previous research findings and underscore the need to continue conceptual and methodological debates.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

The data from the first sample are available upon request from the second author.

The data from the second sample are available upon request from the first author.

Data available upon request: guy.notelaers@uib.no.

References

- Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiralling effect of incivility in the workplace. *Academy of Management Review*, 24(3), 452–471. <https://doi.org/10.5465/AMR.1999.2202131>

- Baillien, E., De Cuyper, N., & De Witte, H. (2011). Job autonomy and workload as antecedents of workplace bullying: A two-wave test of Karasek's job demand control Model for targets and perpetrators. *Journal of Occupational & Organizational Psychology*, 84(1), 191–208. <https://doi.org/10.1348/096317910X508371>
- Baillien, E., Notelaers, G. (2023). Chapter, 13: What's in a name! The thin line between being bullied and lacking social support: Are both 'just' the same? In : Nele De Cuyper, Eva Selenko, Martin Euwema, and Wilmar Schaufeli (Eds.), *Job insecurity, precarious employment and burnout* (pp. 256–271). Edward Elgar Publishing. <https://doi.org/10.4337/9781035315888.00025>
- Björkqvist, K. (1992). Trakassering förekommer bland anställda vid ÅA (harassment among employees at Åbo Akademi). *Meddelanda Från Åbo Akademi*, 9, 14–17.
- Blau, G., & Andersson, L. (2005). Testing a measure of instigated workplace incivility. *Journal of Occupational Organizational Psychology*, 78(4), 595–614. <https://doi.org/10.1348/096317905X26822>
- Boudrias, V., Trépanier, S. G., & Salin, D. (2021). A systematic review of research on the longitudinal consequences of workplace bullying and the mechanisms involved. *Aggression & Violent Behavior*, 56, 101508. <https://doi.org/10.1016/j.avb.2020.101508>
- Cheng, B., Dong, Y., Zhang, Z., Shaalan, A., Guo, G., & Peng, Y. (2022). When targets strike back: How negative workplace gossip triggers political acts by employees. *Journal of Business Ethics*, 175(2), 289–302. <https://doi.org/10.1007/s10551-020-04648-5>
- Cortina, L. M., Kabat-Farr, D., Magley, V. J., & Nelson, K. (2017). Researching rudeness: The past, present, and future of the science of incivility. *Journal of Occupational Health Psychology*, 22(3), 299. <https://doi.org/10.1037/ocp0000089>
- Cortina, L. M., Magley, V. J., Williams, J. H., & Langhout, R. D. (2001). Incivility in the workplace: Incidence and impact. *Journal of Occupational Health Psychology*, 6(1), 4–80. <https://doi.org/10.1037/1076-8998.6.1.64>
- Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Developments in theory, research and practice* (pp. 3–39). Taylor & Francis.
- Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and Harassment in the Workplace. Developments in Theory, Research and Practice* (pp. 3–39). Taylor & Francis.
- Einarsen, S., & Pedersen, H. (2016). *Faktaundersøkelse: metodikk i vanskelige arbeidsmiljøer*. Gyldendal akademisk.
- Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence & Victims*, 12(3), 247–263. <https://doi.org/10.1891/0886-6708.12.3.247>
- Escartín, J., Sora, B., Rodríguez-Muñoz, A., & Rodríguez-Carballeira, Á. (2012). Adaptación y validación de la versión española de la Escala de Conductas Negativas en el Trabajo realizadas por acosadores: NAQ-Perpetrators. *Revista de Psicología del Trabajo y de las Organizaciones*, 28, 157–170. http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1576-59622012000300003&nrm=iso
- Fida, R., Paciello, M., Tramontano, C., Fontaine, R. G., Barbaranelli, C., & Farnese, M. L. (2015). An integrative approach to understanding counterproductive work behavior: The roles of stressors, negative emotions, and moral disengagement. *Journal of Business Ethics*, 130(1), 131–144. <https://doi.org/10.1007/s10551-014-2209-5>
- Foster, E. K. (2004). Research on gossip: Taxonomy, methods, and future directions. *Review of General Psychology*, 8(2), 78–99. <https://doi.org/10.1037/1089-2680.8.2.78>
- Hagenaars, J. A., & McCutcheon, A. L. (2002). *Applied latent class analysis* (p. 476). Kluwer.

- Han, S., Harold, C. M., Oh, I. S., Kim, J. K., & Agolli, A. (2022). A meta-analysis integrating 20 years of workplace incivility research: Antecedents, consequences, and boundary conditions. *Journal of Organizational Behavior*, 43(3), 497–523. <https://doi.org/10.1002/job.2568>
- Hauge, L. J., Skogstad, A., & Einarsen, S. (2009). Individual and situational predictors of workplace bullying: Why do perpetrators engage in the bullying of others? *Work & Stress*, 23(4), 349–358. <https://doi.org/10.1080/02678370903395568>
- Hauge, L. J., Skogstad, A., & Einarsen, S. (2009). Individual and situational predictors of workplace bullying: Why do perpetrators engage in the bullying of others. *Work & Stress*, 23(4), 349–358.
- Heinemann, P. P. (1972). *Mobbning : Gruppvåld bland barn och vuxna*. Natur och Kultur.
- Hershcovis, M. S., & Reich, T. C. (2013). Integrating workplace aggression research: Relational, contextual, and method considerations. *Journal of Organizational Behavior*, 34(S1), S26–S42. <https://doi.org/10.1002/job.1886>
- Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organisational Psychology and Organisational Behavior*, 5(18), 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Itzkovich, Y., & Dolev, N. (2021). Cultivating a safer organizational climate in the public sector: Mistreatment intervention using the four pillars of lifelong learning. *Societies*, 11(2), 48. <https://doi.org/10.3390/soc11020048>
- Leake, G., Amankwaa, A., & de Pater, I. E. (2026). Workplace mistreatment: A systematic review of interventions and future research agenda. *Journal of Business Ethics*, 204(3), 523–564. <https://doi.org/10.1007/s10551-025-06058-x>
- Lecrubier, Y. (2006). Physical components of depression and psychomotor retardation. *Journal of Clinical Psychiatry*, 67(6), 23–26.
- Li, C.-H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares [journal article]. *Behavior Research Methods*, 48(3), 936–949. <https://doi.org/10.3758/s13428-015-0619-7>
- Lubke, G. H., & Muthén, B. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods*, 10(1), 21–39. <https://doi.org/10.1037/1082-989X.10.1.21>
- Magidson, J., & Vermunt, J. K. (2002). Latent class modelling as a probabilistic extension of k-means clustering. *Quirk's Marketing Research Review*, 3(20), 77–80.
- Martinescu, E., Janssen, O., & Nijstad, B. A. (2019). Gossip as a resource: How and why power relationships shape gossip behavior. *Organizational Behavior and Human Decision Processes*, 153, 89–102. <https://doi.org/10.1016/j.obhdp.2019.05.006>
- Masyn, K. E. (2013). Latent Class Analysis and Finite Mixture Modeling. In T. D. Little (Ed.), *The Oxford Handbook of Quantitative Methods in Psychology: Vol. 2: Statistical Analysis* (p. 0). Oxford University Press. [10.1093/oxfordhb/9780199934898.013.0025](https://doi.org/10.1093/oxfordhb/9780199934898.013.0025).
- Mazzone, A., Pitsia, V., Karakolidis, A., Norman, O., & , J. (2022). Bullied, bystanders, and perpetrators in the workplace: The role of empathy in teachers and school leaders' experiences. *Psychology in the Schools*, 59(3), 515–534. <https://doi.org/10.1002/pits.22628>
- Muthén, B., & Muthén, L. K. (2000). Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes. *Alcoholism, Clinical and Experimental Research*, 24(6), 882–891. <https://doi.org/10.1111/j.1530-0277.2000.tb02070.x>
- Nielsen, M. B., Finne, L. B., Parveen, S., & Einarsen, S. V. (2022). Assessing workplace bullying and its outcomes: The paradoxical role of perceived power imbalance between target and perpetrator. *Frontiers in Psychology*, 13, 907204. <https://doi.org/10.3389/fpsyg.2022.907204>
- Nixon, A. E., Arvan, M., & Spector, P. E. (2021). Will the real mistreatment please stand up? Examining the assumptions and measurement of bullying and incivility. *Work & Stress*, 35(4), 398–422. <https://doi.org/10.1080/02678373.2021.1891584>

- Notelaers, G., Baillien, E., Vermunt, J. K., De Witte, H., & Einarsen, S. (2011). Exposure to workplace bullying: Exploring risk groups with categorical data. *Industrial Health, 49*(1), 73–88. <https://doi.org/10.2486/indhealth.MS1155>
- Notelaers, G., Einarsen, S., De Witte, H., & Vermunt, J. K. (2006). Measuring exposure to bullying at work: The validity and advantages of the latent class cluster approach. *Work & Stress, 20*(4), 289–302. <https://doi.org/10.1080/02678370601071594>
- Notelaers, G., Van der Heijden, B., Guenter, H., Nielsen, M. B., & Einarsen, S. V. (2018). Do interpersonal conflict, aggression and bullying at the workplace overlap? A latent class modeling approach. *Frontiers in Psychology, 9*, 1743. <https://doi.org/10.3389/fpsyg.2018.01743>
- Notelaers, G., & Van der Heijden, B. I. J. M. (2019). Construct validity in workplace bullying and harassment research. In : P. D’Cruz, E. Noronha, G. Notelaers, & C. Rayner (Eds.), *Concepts, approaches and methods* (p. 432). Springer. <http://hdl.handle.net/1956/23443>
- Notelaers, G., Van der Heijden, B. I. J. M., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the short-negative acts questionnaire: Identification of targets and criterion validity. *Work & Stress, 33*(1), 58–75. <https://doi.org/10.1080/02678373.2018.1457736>
- Notelaers, G., Vermunt, J., Baillien, E., Einarsen, S., & De Witte, H. (2011). Exploring risk groups workplace bullying with categorical data. *Industrial Health, 49*(1), 73–88. <https://doi.org/10.2486/indhealth.ms1155>
- Özer, G., & Escartín, J. (2023). The making and breaking of workplace bullying perpetration: A systematic review on the antecedents, moderators, mediators, outcomes of perpetration and suggestions for organizations. *Aggression & Violent Behavior, 69*, 101823. <https://doi.org/10.1016/j.avb.2023.101823>
- Park, L. S. (2021). An “i” for an “i”: A systematic review and meta-analysis of instigated and reciprocal incivility [Dissertations and Theses. Paper 5654. <https://doi.org/10.15760/etd.7526>
- Robinson, M. D., Traurig, E., & Klein, R. J. (2020). On looking versus leaping: A situated multilevel approach to trait anger and the anger-aggression relationship. *Personality & Individual Differences, 164*, 110–130. <https://doi.org/10.1016/j.paid.2020.110130>
- Rosander, M., & Nielsen, M. B. (2023). Perceived ability to defend oneself against negative treatment at work: Gender differences and different types of bullying behaviours. *Applied Psychology, 72*(4), 1430–1448. <https://doi.org/10.1111/apps.12443>
- Rosen, C. C., Koopman, J., Gabriel, A. S., & Johnson, R. E. (2016). Who strikes back? A daily investigation of when and why incivility begets incivility. *Journal of Applied Psychology, 101* (11), 1620–1634. <https://doi.org/10.1037/apl0000140>
- Şantaş, G., Uğurluoğlu, Ö., Özer, Ö., & Demir, A. (2018). Do gossip functions effect on organizational revenge and job stress among health personnel?. *Journal of Health Management, 20*(1), 64–72. <https://doi.org/10.1177/0972063417747724>
- Schilpzand, P., De Pater, I. E., & Erez, A. (2016). Workplace incivility: A review of the literature and agenda for future research. *Journal of Organizational Behavior, 37*(S1), 57–88. <https://doi.org/10.1002/job.1976>
- Semmer, N. K. J., Keller, N., C, A., & Meier, L. L. (2020). Adding insult to injury: Illegitimate stressors and their association with situational well-being, social self-esteem, and desire for revenge. *Work & Stress, 35*(3), 262–282. <https://doi.org/10.1080/02678373.2020.1857465>
- Spector, P. E., Coulter, M. L., Stockwell, H. G., & Matz, M. W. (2007). Perceived violence climate: A new construct and its relationship to workplace physical violence and verbal aggression, and their potential consequences. *Work & Stress, 21*(2), 117–130. <https://doi.org/10.1080/02678370701410007>
- Taris, T. W. (2022). What we need to know about workplace bullying. *Work & Stress, 36*(2), 129–132. <https://doi.org/10.1080/02678373.2022.2093517>

- Trochim, W. (2000). *The research methods knowledge base* (2nd ed.). Atomic Dog Publishing.
- Vander Elst, T., Notelaers, G., & Skogstad, A. (2018). The reciprocal relationship between job insecurity and depressive symptoms: A latent transition analysis. *Journal of Organizational Behavior*, 39(9), 1197–1218. <https://doi.org/10.1002/job.2250>
- Vermunt, J. K., & Magidson, J. (2002). Latent class cluster analysis. In J. Hagenars & A. McCutcheon (Eds.), *Applied latent class analysis* (pp. 89–106). Cambridge University Press.
- Vranjes, I., Salin, D., & Baillien, E. (2022). Being the bigger person: Investigating the relationship between workplace bullying exposure and enactment and the role of coping in ending the bullying spiral. *Work & Stress*, 36(2), 183–201. <https://doi.org/10.1080/02678373.2021.1969477>
- Wang, Q., Bowling, N. A., Qi-Tao, T., Alarcon, G. M., & Ho, K. K. (2018). Workplace harassment intensity and revenge: Mediation and moderation effects. *Journal of Business Ethics*, 151(1), 213–234. <https://doi.org/10.1007/s10551-016-3243-2>
- Wax, A., Rodriguez, W. A., & Asencio, R. (2022). Spilling tea at the water cooler: A meta-analysis of the literature on workplace gossip. *Organizational Psychology Review*, 12(4), 453–506. <https://doi.org/10.1177/20413866221112383>
- Weller, B. E., Bowen, N. K., & Faubert, S. J. (2020). Latent class analysis: A guide to best practice. *Journal of Black Psychology*, 46(4), 287–311. <https://doi.org/10.1177/0095798420930932>