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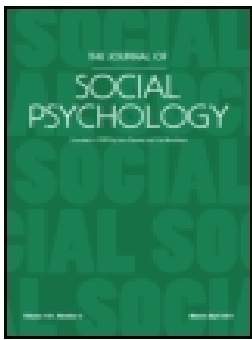
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Reactions to claimed and granted overinclusion: Extending research on the effects of claimball versus cyberball

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ABSTRACT

Social outcomes can result both from people's own behavior (claim process) and from the behavior of others (grant process). Prior research compared the effect of these two processes on people's experience of inclusion and outperformance, using two virtual ball-toss games: claimball and cyberball. We extend this work by using the same games to assess reactions to a third social outcome, overinclusion. Participants obtained the majority of the ball-tosses (overinclusion) or almost no ball-tosses (ostracism) in claimball or cyberball. Results showed that (1) overinclusion was more satisfying than ostracism, (2) especially when granted by others and less so when claimed for oneself. These results advance knowledge about people's experience of social outcomes, depending on the processes leading to them.

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Many desired social outcomes (e.g., inclusion, status) result both from people's own behavior and from that of helpful others. For example, status may result from a person taking center stage and asserting influence and from others deferring to a person and bestowing them with attention and respect (De Waal-Andrews, Gregg, & Lammers, 2015; Henrich & Gil-White, 2001). Similarly, inclusion may result from trying hard to fit in with social norms and expectations (Cialdini & Trost, 1998; Lodewijkx & Syroit, 1997, 2001) and from being acknowledged, accepted and involved by others (Hartung, Sproesser, & Renner, 2015; Wirth, Sacco, Hugenberg, & Williams, 2010). Moreover, sometimes people's own behavior is more instrumental in attaining social outcomes and sometimes other peoples' behavior is (De Waal-Andrews et al., 2015). How might people's reactions to social outcomes differ as a consequence?

One way to assess this is by letting some people play a game of *cyberball* (Williams, Cheung, & Choi, 2000) and letting other people play a game of *claimball* (De Waal-Andrews & Van Beest, 2012). Both cyberball and claimball are virtual games in which a ball is tossed between players who are pictured as schematic figures on the screen. Participants are led to believe they are playing against other participants. In reality they receive a pre-determined number of ball-tosses. Cyberball and claimball look identical, but differ in how they are played. In cyberball participants click another player's figure on the screen to throw them the ball and other players allegedly do the same. Thus, in cyberball participants receive balls because other players "grant" them the ball. In claimball, in contrast, participants "claim" the ball for themselves by allegedly being the first to click the player holding it. Therefore, using these games in parallel allows for the independent manipulation of the game *outcome* (the number of balls-tosses obtained by a participant) and the game *process* (whether these ball-tosses were claimed or granted).

Both cyberball and claimball were developed to assess people's experience of inclusion and ostracism, but have been used to assess a variety of social outcomes by making simple changes to the cover-story, incentives and visual cues. For example, cyberball has been paired with positive and negative monetary rewards (De Waal-Andrews & Van Beest, 2018; Lelieveld, Gunther Moor, Crone,

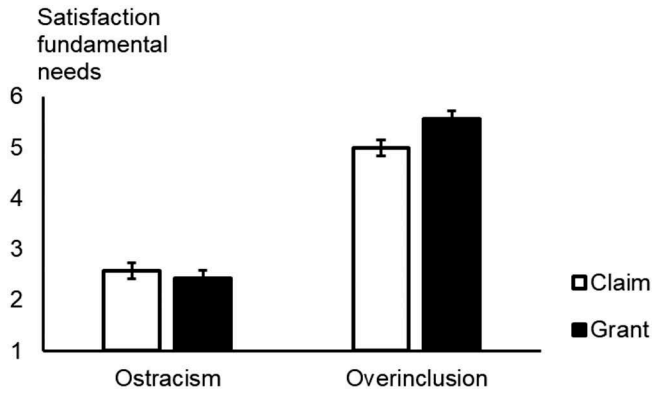


Figure 1. Participants' ($n = 100$) mean level of satisfaction of fundamental needs as a function of ostracism or overinclusion that was either claimed or granted. Standard errors are represented by the error bars attached to each column.

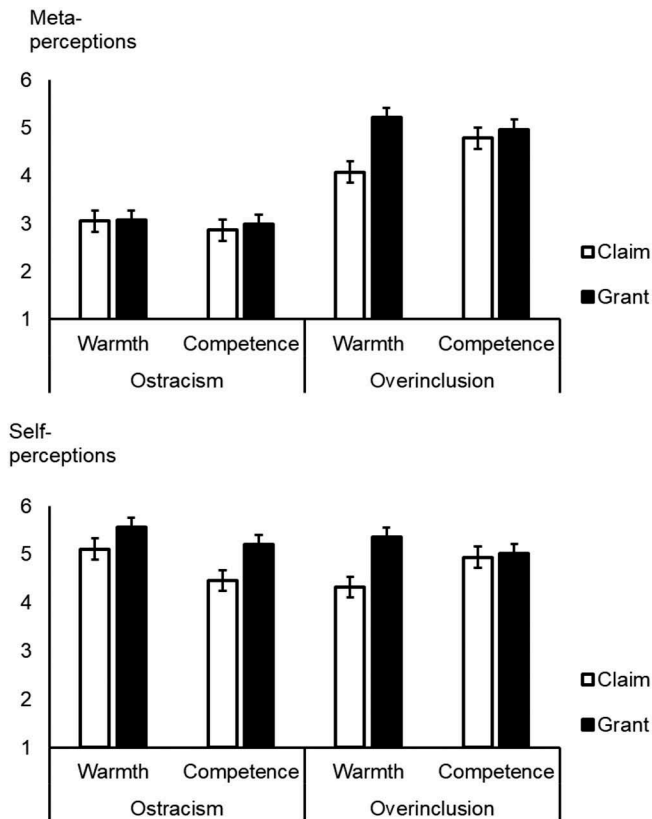


Figure 2. Participants' ($n = 100$) mean level of meta-perceptions of their warmth and competence and mean level of self-perceptions of their warmth and competence as a function of ostracism or overinclusion that was either claimed or granted. Standard errors are represented by the error bars attached to each column.

Karremans, & Van Beest, 2013; Van Beest & Williams, 2006), players have been presented as members of desired or undesired groups (Gonsalkorale & Williams, 2007; Paolini, Alparone, Cardone, van Beest, & Merla, 2016) or non-humans (Zadro, Williams, & Richardson, 2004), the game has featured a bomb being thrown between players (Van Beest, Williams, & Van Dijk, 2011),

and participants have been led to believe that they played as a group rather than as individuals (Van Beest, Carter-Sowell, Van Dijk, & Williams, 2012).

Cyberball and claimball have been used in parallel to assess people's experience of inclusion (receiving an *equal* number of ball-tosses in a *non-competitive* setting; De Waal-Andrews & Van Beest, 2012), and people's experience of outperforming others (receiving *more* ball-tosses than other players in a *competitive* setting; De Waal-Andrews & Van Beest, 2018). Crucially, the games have not yet been used to assess people's experience of receiving *more* ball-tosses than other players in a *non-competitive* setting, an outcome referred to as overinclusion (Williams et al., 2000). Overinclusion occurs when people are not only acknowledged and accepted by others, but they receive a larger share of others' attention than the other people who are present. This may occur when people are recognized in public for a special occasion (e.g., a birthday) or milestone (e.g., a degree ceremony) or simply because their behavior or spirit makes them the center of attention. As these examples suggest, overinclusion may sometimes result primarily from people's own effectiveness at claiming it (e.g., through lively conversation at a party) or primarily from other people granting it (e.g., by publicly cheering or honoring them). Therefore, studying overinclusion with the cyberball versus claimball paradigm can provide important insights into people's reactions to this social outcome.

Additionally, people's reaction to overinclusion can provide valuable information that is important for a correct interpretation of the results from the previous studies using cyberball and claimball. This research found that people appreciate inclusion in a non-competitive setting more when others grant it to them than when they claim it for themselves, but did not find that they appreciate ostracism in a non-competitive setting differently when it results from others not granting inclusion and from failing to claim it (De Waal-Andrews & Van Beest, 2012). However, ostracism and inclusion differ both in terms of reflecting respectively a lower versus a higher level of inclusion *and* in terms of reflecting respectively a more unequal versus a more equal level of inclusion. Therefore research has not yet determined which of these dimensions underlies the relative advantage of being granted inclusion. Prior research also found that people appreciate overinclusion in a competitive setting (i.e., outperformance) more when others grant it to them than when they claim it for themselves, but not that they appreciate ostracism in a competitive setting differently when it results from others not granting inclusion and from failing to claim it (De Waal-Andrews & Van Beest, 2018). However, norms of reciprocity (Gouldner, 1960) may be stronger in non-competitive settings, and may reduce the relative advantage of being granted overinclusion. Therefore research has not yet determined whether the relative advantage of being granted overinclusion is a feature of competitive settings, or will emerge more generally. Understanding people's reactions to overinclusion in a non-competitive setting will allow us to untangle these possible mechanisms underlying the previous findings. Thus, by assessing people's reactions to overinclusion and ostracism in a non-competitive setting this paper not only extends prior research on cyberball and claimball to a different social outcome – overinclusion – it also allows a more careful interpretation of prior findings.

Overinclusion

Overinclusion is an enhanced form of inclusion (Williams et al., 2000). Overincluded people are the center of attention (Van Beest & Williams, 2006) and “stand out” (Van Beest et al., 2011). Prior research suggests that this can be a positive experience. For example, people found overinclusion in cyberball more satisfying than ostracism (Williams et al., 2000). However, overinclusion was less satisfying when ball-tosses were associated with a monetary loss (Van Beest & Williams, 2006, Study 2) or when people were tossed a bomb (Van Beest et al., 2011, Study 2) than when ball-tosses were associated with a gain or people were tossed a ball. Moreover, people who were overincluded by being tossed a bomb behaved more aggressively to other players than people tossed a ball (Van Beest et al., 2011, Study 2). Thus, people reacted less positively to overinclusion when it was associated with a negative outcome.

We argue that *claiming* overinclusion will also decrease its appeal. More specifically, we argue that the psychological benefits of claimed overinclusion will outweigh the psychological costs to a *lesser extent* than those of granted overinclusion.¹ As overincluded people get more than their fair share of inclusion they may worry about seeming selfish (cf. Kinias, Kim, Hafenbrack, & Lee, 2014), especially when they claimed it themselves. Conversely, being granted overinclusion could make people infer that others like them, which could enhance the satisfaction of this outcome. Overall, we therefore expected that claimed overinclusion would be less *intrapersonally* satisfying than granted overinclusion.

As negatively valenced overinclusion can increase aggression (Van Beest et al., 2011, Study 2), claimed overinclusion might also be more *interpersonally* abrasive than granted overinclusion. However, the opposite might also be true. In prior research the negative implications of overinclusion resulted from other people's behavior, which may have led overincluded individuals to retaliate. However, the negative implications of claimed overinclusion results from individuals' own behavior and its consequences for others' perception of them. This may lead them to compensate for their behavior rather than retaliate. Given the opposing implications of these two lines of reasoning, we made no a-priori predictions about people's interpersonal reactions to claimed and granted overinclusion.

Method

We tested these hypotheses in an experimental study in which participants took part in either a game of cyberball or a game of claimball. The study mirrored prior research assessing the effects of these games on social outcomes (De Waal-Andrews & Van Beest, 2012, 2018), but also differed in important ways. Like this prior research we used ostracism, a condition in which participants received less ball-tosses than either other player, as the control condition. Moreover, like this prior research we measured both people's *intrapersonal* reactions (satisfaction of fundamental needs, mood, self- and meta-perceptions of warmth and competence) and people's *interpersonal* reactions (perceptions of social relations, antisocial cognitions, prosocial behavior) to the games. Moreover, we assessed people's intrapersonal reactions immediately following the game, but in order to allow people to think through the implications of the event for their relationship with others, we assessed people's interpersonal reactions following an instruction to carefully reflect upon the experience.

Different from prior research assessing the effects of the two games on inclusion (De Waal-Andrews & Van Beest, 2012), participants in the overinclusion condition received more ball-tosses than either other player. Moreover, different from prior research assessing the effects of the games on outperformance (De Waal-Andrews & Van Beest, 2018), the games were not presented as a contest and participants received no reward for attaining ball-tosses. Rather, participants simply obtained *more* ball-tosses than the other players or obtained *less* ball-tosses than the other players.²

Participants

A hundred and eight psychology undergraduates participated in a 2 (outcome: overinclusion, ostracism) x 2 (process: claim, grant) between-subject experiment. Eight participants were removed for failing to claim more balls than other players in the overinclusion condition, leaving 100 participants (82.0% female) aged 17 to 29 ($M = 19.45$, $SD = 2.24$).³ A power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) revealed that this sample size sufficed to assess the medium-sized effects that are typically observed in research on cyberball versus claimball ($f \approx .25$; De Waal-Andrews & Van Beest, 2012, 2018) with 70% power.⁴

Procedure

Similar to other studies using cyberball (e.g., Van Beest & Williams, 2006) or claimball (e.g., De Waal-Andrews & Van Beest, 2012) participants took part in individual cubicles in the lab. Participants were told they would play a virtual ball-toss game with two other participants, allegedly situated in other cubicles. They were encouraged to imagine the game was happening in reality by visualizing the other players and their location. The other players were shown as animated figures and labeled respectively “Pieter” and “Maartje” (popular names for respectively males and females in The Netherlands). Participants were shown as an animated hand at the bottom of the screen and labeled with a name they provided.

Each game consisted of 30 ball-tosses. Participants could obtain 15 of these ball-tosses in the overinclusion condition and two in the ostracism condition. Cyberball was programmed to simply throw the correct number of ball-tosses to participants. However, in order to match the cover story, ball-tosses intended for participants in claimball were only thrown to them once they clicked the screen to claim them.⁵

Measures

To facilitate a comparison between the current findings and prior findings on ostracism, and on cyberball versus claimball the measures largely mirror those used in the extant research. Where not stated differently, items were rated on 7-point bipolar scales ranging from *not at all* (1) to *very much* (7), reverse scored where appropriate, and averaged across scales to create composite scores. We discuss all measures included in the study, and in the order in which they were presented.

Need satisfaction

A 20-item scale (Van Beest & Williams, 2006) measured participants' satisfaction of four fundamental needs ($M = 3.77$, $SD = 1.61$, $\alpha = .96$): *belonging* (e.g., “I felt as one with the other players”), *control* (e.g., “I felt that I was in control of the game”), *self-esteem* (e.g., “Playing the game made me feel insecure”, reverse scored), and *meaningful existence* (e.g., “I thought my participation in the game was useful”).

Mood

Participants' mood was measured with ten items presented in a fixed random order ($M = 4.62$, $SD = 1.16$, $\alpha = .86$). Nine items were from the expanded PANAS (Watson & Clark, 1991): three measured *positive affect* (“enthusiastic”, “proud”, “determined”), and two measured respectively *guilt* (“ashamed”, “unhappy with myself”), *hostility* (“irritated”, “angry”), and *sadness* (“sad”, “lonely”). A final item assessed *hurt feelings* (“hurt”), an emotion typically ensuing interpersonal rejection (Smart Richman & Leary, 2009).

Warmth and competence

Six items assessed participants' meta-perceptions of warmth (“The other players thought I was kind/well-intentioned/reliable/warm/good-natured/sincere”; $M = 3.81$, $SD = 1.41$, $\alpha = .94$), and six their meta-perceptions of competence (“I thought I was competent/assured/independent/capable/efficient/skilled”; $M = 3.80$, $SD = 1.43$, $\alpha = .94$). Similarly, six items assessed participants' self-perceived warmth (“I thought I was kind/well-intentioned/reliable/warm/good-natured/sincere”; $M = 5.15$, $SD = 1.05$, $\alpha = .89$), and six their self-perceived competence (“I thought I was competent/assured/independent/capable/efficient/skilled”; $M = 4.90$, $SD = 1.10$, $\alpha = .89$).

Social relations

After reflecting on the game, participants completed a three-person version of the inclusion of other in self scale (Aron, Aron, & Smollan, 1992). They positioned three circular objects – each

representing one of the players—in a 2-dimensional space. We recorded the resulting distances in mm between Pieter and Maartje ($M = 216.98$, $SD = 124.75$) and the average distance between respectively the participant and Pieter and the participant and Maartje ($M = 271.99$, $SD = 167.14$, $r(100) = .96$). Participants also indicated on a single item to what extent they felt “different from others” ($M = 4.68$, $SD = 1.64$). Moreover, two items assessed to what extent they felt “like a winner” and “like a loser” (rev), $M = 3.69$, $SD = 1.81$, $r(100) = -.62$, $p < .001$.

Antisocial cognitions

A Nine-item measure assessed participants’ antisocial thoughts concerning Pieter and then concerning Maartje (cf. Van Beest & Williams, 2006). Items included “I am not angry with Pieter/Maartje at all” (rev) and “I want to take revenge on Pieter/Maartje” ($M = 2.96$, $SD = 1.27$, $\alpha = .94$).

Prosocial behavior

A dictator game (Forsythe, Horowitz, Savin, & Sefton, 1994) measured prosocial behavior. Participants divided 10 Euros between themselves and Pieter, and then between themselves and Maartje, giving each player two, three, four, five or six euros (keeping respectively eight, seven, six, five or four euros themselves). We averaged the money given to the other players to create a composite score of prosocial behavior, $M = 3.92$, $SD = 1.20$, $r(100) = .89$, $p < .001$.

Manipulation checks

Participants’ understanding of the game outcome was assessed by asking: “What proportion of ball-tosses did you obtain?” ($M = 29.16$, $SD = 26.79$). Participants’ understanding of the game process was assessed with three questions: “How was the game played?” (*I needed to click to throw the ball or I needed to click to claim the ball*), “I needed to click to throw the ball” (*Yes or no*), and “I needed to click to claim the ball” (*Yes or no, reverse scored*). We assigned participants one point for each correct answer, and totaled their points ($M = 2.90$, $SD = .46$).

Results and discussion

Our analyses mirror those used in prior research on cyberball versus claimball. Moreover, in keeping with our aim of extending this prior research we discuss current results in light of the previous findings. Descriptive statistics for the main variables are reported in [Table 1](#).

Manipulation checks

A 2 (outcome) \times 2 (process) ANOVA revealed that the outcome manipulation was successful: participants recalled obtaining a larger percentage of ball-tosses in the overinclusion ($M = 56.13$, $SD = 14.71$) than in the ostracism condition ($M = 7.09$, $SD = 6.12$), $F(1,96) = 531.49$, $p < .001$, $\eta^2 = .85$. The effect of process, $F(1,96) = 3.67$, $p = .058$, $\eta^2 = .04$, and the interaction between process and outcome, $F(1,96) = 2.89$, $p = .093$, $\eta^2 = .03$, did not reach significance.

The process manipulation was also successful: the number of correct answers did not differ across process, $F(1,96) = .06$, $p = .807$, $\eta^2 < .01$, outcome, $F(1,96) = 1.02$, $p = .314$, $\eta^2 = .01$, or the interaction between process and outcome, $F(1,96) = 1.89$, $p = .172$, $\eta^2 = .02$. Moreover, most participants answered all three questions correctly in both the claim condition (96.2%) and the grant condition (91.5%).

Need satisfaction

A 2 (outcome) \times 2 (process) ANOVA on need satisfaction revealed a main effect of outcome, $F(1,96) = 312.27$, $p < .001$, $\eta^2 = .77$, but not of process, $F(1,96) = 1.97$, $p = .164$, $\eta^2 = .02$, and an interaction between outcome and process, $F(1,96) = 5.10$, $p = .026$, $\eta^2 = .05$. Calculating simple effects revealed that, relative to ostracism, overinclusion increased need satisfaction both in the claim condition, $F(1,96) = 110.13$, $p < .001$, $\eta^2 = .53$, and the grant condition, $F(1,96) = 215.51$, $p < .001$,

Table 1. Means (Standard Deviations) of main variables in study 1.

Measures	Ostracism		Overinclusion	
	Claim	Grant	Claim	Grant
Satisfaction fundamental needs*	2.57 _a (.71)	2.43 _a (.79)	4.99 _b (1.05)	5.56 _c (.56)
Mood*	3.93 _a (1.09)	4.09 _a (1.14)	5.22 _b (.90)	5.48 _b (.47)
Meta-perceptions of warmth*	3.05 _a (1.02)	3.07 _a (1.23)	4.07 _b (1.26)	5.21 _c (.85)
Meta-perceptions of competence*	2.86 _a (1.07)	2.98 _a (1.30)	4.78 _b (.90)	4.96 _b (.81)
Self-perceptions of warmth*	5.11 _a (1.02)	5.56 _a (.99)	4.32 _b (1.12)	5.35 _a (.78)
Self-perceptions of competence*	4.46 _a (1.25)	5.20 _b (1.10)	4.94 _{ab} (.88)	5.01 _{ab} (.96)
Distance to other players (mm)	299.99 _a (171.42)	391.74 _b (199.25)	182.53 _c (57.24)	183.19 _c (67.90)
Distance between other players (mm)	154.17 _a (97.82)	173.46 _a (105.63)	259.21 _b (102.34)	298.96 _b (131.67)
Feeling like a winner*	2.20 _a (1.08)	2.72 _a (1.54)	5.21 _b (1.08)	5.19 _b (.86)
Feeling different*	4.93 _a (1.44)	4.59 _a (1.76)	5.00 _a (1.41)	4.27 _a (1.85)
Antisocial cognitions*	3.86 _a (1.06)	3.43 _a (1.24)	2.15 _b (.87)	2.08 _b (.71)
Prosocial behavior (€)	3.89 _a (1.16)	3.24 _b (1.19)	4.24 _a (1.10)	4.40 _a (1.04)

*Items were rated on 7-point scales. Note that means with different subscripts within the same row are significantly different at least at the $p < .05$ level.

$\eta^2 = .69$. Moreover, need satisfaction was higher in the grant condition than in the claim condition following overinclusion, $F(1,96) = 6.03$, $p = .016$, $\eta^2 = .06$, but did not differ across processes following ostracism, $F(1,96) = .41$, $p = .522$, $\eta^2 < .01$. Thus, as illustrated in [Figure 1](#), need satisfaction was higher following granted overinclusion than following claimed overinclusion.

Mood

A 2 (outcome) x 2 (process) ANOVA on mood revealed a main effect of outcome such that mood was more positive following overinclusion ($M = 5.37$, $SD = .69$) than following ostracism ($M = 4.01$, $SD = 1.10$), $F(1,96) = 48.99$, $p < .001$, $\eta^2 = .34$. No main effect emerged of process, $F(1,96) = 1.207$, $p = .257$, $\eta^2 = .01$, and no interaction between outcome and process, $F(1,96) = .07$, $p = .796$, $\eta^2 < .01$. Thus people's mood did not differ following claimed and granted overinclusion.

Meta-perceptions of warmth and competence

A 2 (outcome) x 2 (process) x 2 (meta-perception type: warmth, competence) between/within ANOVAs revealed a main effect of outcome, $F(1,96) = 79.01$, $p < .001$, $\eta^2 = .45$, and two-way interactions between meta-perception type and outcome, $F(1,96) = 4.12$, $p = .045$, $\eta^2 = .04$, and between meta-perception type and process, $F(1,96) = 6.09$, $p = .015$, $\eta^2 = .06$, but no main effect of process, $F(1,96) = 3.40$, $p = .068$, $\eta^2 = .03$, and no interaction between outcome and process, $F(1,96) = 2.24$, $p = .138$, $\eta^2 = .02$. Moreover, a three-way interaction emerged between outcome, process and meta-perception type, $F(1,96) = 9.59$, $p = .003$, $\eta^2 = .09$.

To interpret this three-way interaction (see Howell & Lacroix, 2012), we computed simple interactions between meta-perceptions and processes in both outcome conditions. As illustrated in [Figure 2](#), this revealed a significant interaction in the overinclusion condition, $F(1,96) = 13.93$, $p < .001$, $\eta^2 = .13$, but not in the ostracism condition, $F(1,96) = .22$, $p = .638$, $\eta^2 < .01$. Subsequently computing second-order simple effects in the overinclusion condition revealed no main effect of process on meta-perceptions of competence, $F(1,96) = .33$, $p = .570$, $\eta^2 < .01$, but did reveal a main

effect of process on meta-perceptions of warmth, $F(1,96) = 12.03$, $p = .001$, $\eta^2 = .11$, such that participants thought others found them warmer when they were granted overinclusion than when they claimed overinclusion.

Self-perceptions of warmth and competence

A 2 (outcome) x 2 (process) x 2 (self-perception type) between/within ANOVAs revealed a main effect of process, $F(1,96) = 9.79$, $p = .002$, $\eta^2 = .09$, no main effect of outcome, $F(1,96) = .99$, $p = .321$, $\eta^2 = .01$, an interaction between self-perception type and outcome, $F(1,96) = 11.35$, $p = .001$, $\eta^2 = .11$, no interaction between self-perception type and process, $F(1,96) = 3.11$, $p = .081$, $\eta^2 = .03$, and no interaction between outcome and process, $F(1,96) = .01$, $p = .913$, $\eta^2 < .01$. Moreover, a three-way interaction emerged between outcome, process and self-perception type, $F(1,96) = 10.32$, $p = .002$, $\eta^2 = .10$.

To interpret the three-way interaction (see Howell & Lacroix, 2012), we computed simple interactions between self-perception type and process in both outcome conditions. As illustrated in Figure 2, this revealed a significant interaction in the overinclusion condition, $F(1,96) = 11.13$, $p = .001$, $\eta^2 = .10$, but not in the ostracism condition, $F(1,96) = 1.18$, $p = .280$, $\eta^2 = .01$. Computing second-order simple effects to interpret the two-way interaction in the overinclusion condition revealed no main effect on self-perceptions of competence, $F(1,96) = .05$, $p = .820$, $\eta^2 < .01$. but did reveal a main effect of process on self-perceptions of warmth, $F(1,96) = 12.01$, $p = .001$, $\eta^2 = .11$, such that participants felt warmer when they were granted overinclusion than when they claimed overinclusion.

Social relations

A 2 (outcome) x 2 (process) ANOVA on the distance perceived by participants between themselves and the other players revealed a main effect of outcome, $F(1,96) = 31.08$, $p < .001$, $\eta^2 = .25$, such that the distance was perceived as larger in the ostracism condition ($M = 344.88$, $SD = 189.64$) than in the overinclusion condition ($M = 182.91$, $SD = 62.93$). No main effect emerged of process, $F(1,96) = 2.32$, $p = .116$, $\eta^2 = .03$, and no interaction between outcome and process, $F(1,96) = 2.45$, $p = .121$, $\eta^2 = .03$. An analysis of the resulting distance between Pieter and Maartje also revealed a main effect of outcome, $F(1,96) = 26.61$, $p < .001$, $\eta^2 = .22$, such that this distance was perceived as smaller in the ostracism condition ($M = 163.64$, $SD = 101.25$) than in the overinclusion condition ($M = 282.18$, $SD = 120.53$), no main effect of process, $F(1,96) = 1.75$, $p = .190$, $\eta^2 = .02$, and no interaction between outcome and process, $F(1,96) = .21$, $p = .648$, $\eta^2 < .01$.

A 2 (outcome) x 2 (process) ANOVA on the measure of feeling different provided no support that overinclusion and ostracism differed in the extent to which they made people feel “singled out”, $F(1,96) = .14$, $p = .705$, $\eta^2 < .01$. Moreover, no main effect emerged of process, $F(1,96) = 2.59$, $p = .111$, $\eta^2 = .03$, and no interaction between outcome and process, $F(1,96) = .36$, $p = .553$, $\eta^2 < .01$. Finally, an analysis of feeling like a winner yielded only a main effects of outcome, $F(1,96) = 132.47$, $p < .001$, $\eta^2 = .58$, suggesting that overinclusion was perceived as a more positive form of standing out than ostracism (cf. Van Beest & Williams, 2006; Van Beest et al., 2011; Williams et al., 2000). No main effect emerged of process, $F(1,96) = 1.14$, $p = .289$, $\eta^2 = .01$, and no interaction between outcome and process, $F(1,96) = 1.30$, $p = .256$, $\eta^2 = .01$.

Antisocial cognitions

A 2 (outcome) x 2 (process) ANOVA on antisocial cognitions revealed a main effect of outcome, $F(1,96) = 55.72$, $p < .001$, $\eta^2 = .37$, such that these cognitions occurred less in the overinclusion condition ($M = 2.12$, $SD = .80$) than in the ostracism condition ($M = 3.64$, $SD = 1.17$). No main effect emerged of process, $F(1,96) = 1.51$, $p = .222$, $\eta^2 = .02$, and no interaction between outcome and process, $F(1,96) = .74$, $p = .391$, $\eta^2 = .01$. Thus, people’s antisocial cognitions did not differ following

claimed and granted overinclusion. However, the low scores in both overinclusion conditions suggest this may result from a floor effect.

Prosocial behavior

A 2 (outcome) x 2 (process) ANOVA on prosocial behavior revealed a main effect of outcome, $F(1,96) = 10.95, p = .001, \eta^2 = .10$, such that prosocial behavior was higher following overinclusion ($M = 4.33, SD = 1.06$) than following ostracism ($M = 3.57, SD = 1.21$). The main effect of process, $F(1,96) = 1.13, p = .290, \eta^2 = .01$, and the interaction between outcome and process, $F(1,96) = 3.23, p = .075, \eta^2 = .03$, did not reach significance.

General discussion

Sometimes people's own behavior is more instrumental in attaining desirable social outcomes (e.g., status, inclusion) and sometimes others people's behavior is (De Waal-Andrews et al., 2015). Moreover, people's experience of social outcomes can differ as a consequence (De Waal-Andrews & Van Beest, 2012, 2018). Thus, as far as social outcomes are concerned, the process leading to these outcomes seems to matter. The current research focused on overinclusion, an enhanced form of inclusion (Williams et al., 2000) in which people stand out by being the center of attention (Van Beest et al., 2011). Participants ended up either ostracized or overincluded in a virtual ball-toss game. Moreover, depending on whether they played claimball (De Waal-Andrews & Van Beest, 2012) or cyberball (Williams et al., 2000) this outcome resulted respectively from their own claiming behavior or from the granting behavior of other players.

Our results replicate prior effects of cyberball and claimball on fundamental needs, mood and meta-perceptions of warmth and competence (De Waal-Andrews & Van Beest, 2012, 2018). We did not find that the detrimental effect of ostracism on people's satisfaction of fundamental needs, mood and meta-perceptions of warmth and competence, differed if it resulted from the ball not being thrown to them or not being claimed by them. In contrast, the process leading to overinclusion made a difference for fundamental needs and meta-perceptions of competence but not for mood and meta-perceptions of competence. When people *received* more balls than other players their fundamental needs were more satisfied and their meta-perceptions of warmth were higher than when they *claimed* more balls than other players. These results confirm our expectation that, similar to inclusion (De Waal-Andrews & Van Beest, 2012) and outperformance (De Waal-Andrews & Van Beest, 2018), overinclusion is more pleasurable at the intrapersonal level when granted than when claimed.

Our findings on self-perceptions of warmth and competence diverged from prior findings. In the current research the effects of claimed and granted overinclusion on self-perceptions of warmth differed, but in prior research the effects of claimed and granted outperformance on self-perceptions of warmth did not (De Waal-Andrews & Van Beest, 2018, Study 1 and 2). Why might these differences have emerge? Both outperformance and overinclusion involve people receiving more than their fair share. However, outperformance implies people are involved in a competition, which may provide a valid reason for appropriating more than one's fair share. In contrast, claiming overinclusion may make people appear selfish (Kinias et al., 2014), and feeling disliked may in turn affect their self-perceptions. Moreover, without an excuse for their claiming behavior, claimed overinclusion may also directly and detrimentally impact people's self-liking.

We found main effects of outcome such that people felt more distant from others, engaged in more antisocial cognitions, and behaved less prosocially following ostracism than following overinclusion. Thus, people's interpersonal reactions to ostracism and overinclusion were not moderated by the process leading to these outcomes. A lack of power may be partly to blame: the interaction between outcome and process on prosocial behavior also failed to reach significance in some prior studies with similar sample sizes (De Waal-Andrews & Van Beest, 2108, Study 1 and 2), but emerged in a larger follow-up study (De Waal-Andrews & Van Beest, 2108, Study 3).

However, the lack of moderation might have also resulted from opposing interpersonal reactions to claimed and granted overinclusion. On the one hand, the aversive nature of claimed overinclusion may make people feel aggressive (Van Beest & Williams, 2006), leading them to display more *negative* interpersonal reactions following claimed overinclusion than following granted overinclusion. On the other hand, claimed overinclusion may cause people to blame themselves for not having met reciprocation norms, and to compensate for their shortcoming (cf., Burger, Sanchez, Imberi, & Grande, 2009). Thus, claimed overinclusion may also trigger more *positive* interpersonal reactions than granted overinclusion. Fully understanding people's interpersonal reactions to claimed and granted overinclusion may therefore require testing both these reactions and their possible drivers and it may require doing so in a larger study suited to effectively assess relatively small effects.

We also assessed measures that were not included in prior research using cyberball or claimball. In line with theorizing that both overinclusion and ostracism make people feel they are “conspicuous” (Van Beest & Williams, 2006; Williams et al., 2000) and “stand out” (Van Beest et al., 2011), we did not find that the extent to which people felt different from others differed when people were ostracized and when people were overincluded. However, when asked to depict social distances between themselves and other players, participants who had been ostracized perceived their distance to other players as larger and the distance *between* other players as smaller than participants who had been overincluded. Thus, although we did not find that the extent to which people felt different from others differed following ostracism and overinclusion, the former outcome made them feel more distant from those others than the latter. Moreover, in line with theorizing that humans derive value from being the center of attention (Van Beest et al., 2011), we also found that people felt more victorious following overinclusion than following ostracism.

Conclusion

Our results support earlier conceptualizations of overinclusion as a positive form of “standing out” (Van Beest & Williams, 2006; Van Beest et al., 2011; Williams et al., 2000). Moreover, our work contributes by showing that this is especially true when overinclusion is granted rather than claimed. Our research also largely replicates earlier findings on claimed and granted social outcomes. People's reactions to claimed and granted overinclusion generally mirrored people's reactions in prior research to claimed and granted inclusion and to claimed and granted outperformance, suggesting these different social outcomes contribute to their broader experience of “social value”, the extent to which people feel valued by others (Leary, Cottrell, & Phillips, 2001). However, most notably, these social outcomes were more satisfying when they were granted, and less so when they were claimed. People don't only care about desirable social outcomes, they also care about the process leading to these outcomes.

Notes

1. As an anonymous reviewer suggested people will only claim overinclusion if the benefits outweigh the costs. Given that people may often behave in ways that make them “stand out”, we expect that overinclusion will often be psychologically rewarding even when claimed.
2. All materials and data are available via DataVerse: <https://dataverse.nl>.
3. Including these participants did not meaningfully alter the findings.
4. This power calculation is based on the consistent effect size that emerged across four prior studies for the process \times outcome interaction on need satisfaction ($.23 \leq f \leq .27$). The effect size of the process \times outcome interaction on prosocial behavior was disregarded for being highly inconsistent across three studies ($.14 \leq f \leq .31$) and suggesting the power to assess this effect could fall anywhere within a wide range (28% – 87%).
5. Balls not claimed within 0.85 seconds automatically went to the other player. Pre-trials confirmed this allowed participants ample time to click without appearing unrealistic.

Disclosure statement

No potential conflict of interest was reported by the authors.

Data availability statement

The data described in this article are openly available in the Open Science Framework at <https://dataverse.nl/dataset.xhtml?persistentId=hdl%3A10411%2FBWCOHC>

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