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Social exclusion: put into context

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Chapter 3

Go on without me: Exclusion as a preferable outcome for
underperforming group members

This chapter is based on:

Doolaard, F. T., Noordewier, M. K., Lelieveld, G. -J., Van Beest, I., & Van Dijk, E. (2020). *Go on without me: Exclusion as a preferable outcome for underperforming group members.*

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To state that social exclusion can be a preferable experience, would go against a large body of social, developmental, and cognitive psychological research, that documented the detrimental experience and consequences of exclusion (e.g., Killen, Mulvey, & Hitti, 2013; Syrjämäki & Hietanen, 2018; Wesselmann & Williams, 2017). Still, in the current research we propose that for people who perform well below their fellow group members, exclusion does not only negatively affect their feelings and need fulfilment – it additionally gives rise to feelings of relief, because it sets them free from the negative experience of underperforming in the group. Compared to group members who perform at the same level as their group, we propose that underperformers may benefit less from inclusion, and instead prefer exclusion. They may even be relatively likely to remove themselves from the group when they have the chance, which may come with improved need fulfilment and feelings, making it beneficial to end up apart from the group. Together, the current research thus tests if low performance in the group can highlight aspects of the inclusion and exclusion experience that are quite different from what is commonly reported in the literature.

Social Exclusion and Performance

In social psychological research, the need to belong is considered one of the most important human needs (Baumeister & Leary, 1995): the need for people to seek interactions with others, form groups, and feel included. This need to be with others is so strong, that when people are socially excluded (i.e., neglected, rejected, or removed from a group in any situation, Wesselmann & Williams, 2017; Williams, 2009) they feel sad and angry (Williams & Nida, 2011), and their fundamental needs of belonging, control, self-esteem, and a meaningful existence are threatened (Williams, 2007). An evolutionarily ingrained aversion to end up apart from the group, is considered to be at the base of human's instinctive negative reaction to exclusion (Kerr & Levine, 2008; Spoor, & Williams, 2007; Williams, 2009), which is neurologically similar to the experience of serious physical pain (Eisenberger, 2012; MacDonald & Leary, 2005). In this view, people are so averse to exclusion, that they should feel excluded regardless of the context (Carter-Sowell et al., 2010; Van Beest, Williams, & Van Dijk, 2011) – i.e., even when inclusion has negative elements (e.g., when it concerns inclusion in a despised group, Gonsalkorale & Williams, 2006) or when exclusion has positive elements (e.g., when it pays, Van Beest & Williams, 2006). While inclusion is thus considered a very positive experience, exclusion is characterized as a “social death penalty” (Wesselmann &

Williams, 2017) that people are motivated to avoid at all times (Ouwerkerk, Kerr, Gallucci, & Van Lange, 2005).

Recently, research has begun to nuance this view a bit, by demonstrating that how negatively people experience exclusion can depend on the context. For instance, it was found that exclusion was less harmful when people considered it justified or fair that they were excluded (Tuscherer, Sacco, Wirth, Claypool, Hugenberg, & Wesselmann, 2016), but also when people anticipated exclusion to occur (Gerber & Wheeler, 2014), or when they considered it normative (e.g., not being spoken to in a library, Rudert & Greifeneder, 2016). Contradicting the idea that exclusion is always equally harmful, recent experiments thus show that the pain of exclusion can in fact be attenuated by situational factors (Hartgerink, Van Beest, Wicherts, & Williams, 2015). Similarly, recent research suggests that inclusion is not always equally desirable. For example, it has been demonstrated that people are less keen on becoming part of a group when their need to belong is already satisfied through other social interactions (Sacco & Bernstein, 2015). When they are included against their will, people can even respond aggressively to inclusion (Greenaway, Jetten, Ellemers, & Van Bunderen, 2012). So, a more nuanced view would regard exclusion as negative and inclusion as positive, but emphasize that the exact experiences depend on the situation. We expand on this perspective by investigating a specific situation in which some people may not only experience inclusion as less positive, but in which exclusion – despite its negative effects on people’s feelings and need fulfilment – may even become relieving and preferable: i.e., for people who underperform in the group. Moreover, we test if leaving the group may even improve underperformers’ feelings and need fulfilment, relative to when they were still part of the group.

So far, the question whether people’s performance in the group may moderate their evaluations of being included or excluded has received little attention (but see Carter-Sowell et al., 2010). Research on how people experience inclusion and exclusion has largely used paradigms in which people’s performance was irrelevant, or similar to that of other group members (for an overview of different paradigms, see Williams & Nida, 2011). But in reality, group members often differ in how well they perform: For example, in demanding tasks at work or school, or in sports teams – there are always some group members that perform worse than others. Crucially, if performing worse than others lowers the performance of one’s group, underperformers may feel bad while being part of the group. This possibly attenuates

how positive their experience of inclusion will be, and may also make exclusion from the group more relieving, and even preferable.

The current research focuses specifically on how underperformance that directly impairs the group outcome (i.e., in a conjunctive task; Steiner, 1972), affects individuals in newly formed task groups, where performance is the main goal. Such groups that are formed for a specific task, are used for theory-building throughout the social exclusion literature (see Williams & Nida, 2011), and are not uncommon in real life (e.g., a student group formed to work on a joint project, a team put together for a pub quiz, a group of colleagues joining to work on a grant application). The theoretic contributions of this article thus foremost concern such task groups. A variety of research lends credence to the possibility that underperforming in such situations can indeed be a very negative experience. For example, research demonstrates that group members who perform poorly or slowly in a group task can be seen as burdensome by others (Wesselmann, Wirth, Pryor, Reeder, & Williams 2013, 2015; Wirth, Bernstein, & LeRoy, 2015) – and feeling that one is a burden to others in completing a task is a very distressing experience (Leroy, Lu, Zvolensky, Ramirez, & Fagundes, 2018). To underperform in a group could also make people feel guilty to their group (Baumeister, Stillwell, & Heatherton, 1994) – a very distressing feeling that people rather avoid (Cosmides & Tooby, 2013; Miceli & Castelfranchi, 2018; Wiltermuth & Cohen, 2014).

Because underperforming in a group is such a negative experience, we propose that individuals who perform worse than their group members may experience inclusion as less positive than individuals who perform at the same level as their group. While the signal that their group includes them may be positive for underperformers, inclusion also has the aversive consequence that the experience of being the underperformer in the group endures. This distressing experience may not only impact how good they feel while being part of the group, but may affect their four fundamental needs as well: Although the group chose to retain them, being the person who drags the group down can make it hard to truly feel equally accepted and like one belongs in the group. As long as underperformers are part of the group, they may also experience a reduced sense of control, as they experience an inability to exert influence on their performance, and obtain the required score. Moreover, inclusion confronts low-performers with the fact that they performing worse than their peers, which may reflect negatively on their self-esteem. Knowing that they are unable to contribute in this group with performance as a main goal, could furthermore leave low-performers feel without a purpose.

So, while inclusion generally improves people's feelings and fulfils their fundamental needs, these positive effects may be attenuated for low-performers. Specifically, we predict that compared to group members who perform in line with the group, low-performing group members experience lower need fulfilment and less positive feelings after inclusion.

Regarding the negative effects of exclusion, differences between members who perform below vs. at the same level as their group may be less apparent: Both may experience threatened needs and negative feelings following exclusion. However, we additionally address possible differences in *positive* evaluations of exclusion between these groups. Specifically, low-performers may experience the positive emotion of relief after exclusion, because it ends their negative experience of being burdensome in the group. This beneficial function of exclusion may even make exclusion more preferable. This research thus highlights possible positive evaluations of exclusion (i.e., relief, preference). We predict that low-performing group members consider exclusion to be more relieving than group members who perform in line with the group, and also prefer it more as an outcome. Finally, the current research also tests if this preference for exclusion translates to behavior. We investigate whether low-performing (vs. equal-performing) group members are more likely to leave the group when they have the chance, and whether ending up apart from the group in this way may even come with improved need fulfilment and feelings, compared to when they were part of the group.

Study 3.1

As a first test of these ideas, the inclusion and exclusion experiences were assessed in a scenario-based experiment in which a group responded to individuals' performance, which was below vs. *equal* to that of their group members (from now on referred to as "equal-performers", or "equal-performing group members"). We predicted that low-performers (vs. equal-performers) would feel more distressed while they were part of the group. Also, low-performers would experience inclusion as less positive in terms of need fulfilment and feelings than equal-performers. Finally, we predicted that low-performers would consider exclusion to be more relieving and more preferable than equal-performers.

Method

Participants and design. In the absence of prior data to inform us on power and sample size, we aimed for 40 participants per cell, in correspondence with previous research (Doolaard, Lelieveld, Noordewier, Van Beest, & Van Dijk, 2020). Data of 161 British participants were collected through the online Prolific network (of which 109 female, 52 male,

mean age 33.76, $SD = 11.66$). A sensitivity analysis (calculated in GPower 3.1; Faul, Erdfelder, Buchner, & Lang, 2009) indicated that with $\alpha = .05$, and a power of $\beta = .80$, a sample size of $N = 161$ provides sufficient power to detect main and interaction effects of $f = .22$, or $\eta_p^2 = .05$, in our 2 (social exclusion: exclusion vs. inclusion) \times 2 (performance: low vs. equal) between-subjects design. In this and all following studies, we report the predetermined sample sizes, all data exclusions (if any), all manipulations, and all measures (see Simmons, Nelson, & Simonsohn, 2012). All analyses were performed only after the data collection was finished.

Procedure and materials. After reading and signing the informed consent form, participants were presented with the scenario (see the supplemental material of Chapter 3, in the Appendix). Participants read they joined a soccer team for a local competition, put together by a group of friends. In the low-performance condition participants read they were very bad at soccer, while their team was described as very experienced and competitive. At the training session their team members were annoyed that the participant was part of the team. In the equal-performance condition, participants read they were good at soccer, which would be in line with the performance of the experienced and competitive team. They read their team members were glad the participant was part of the team.

The scenario continued by describing the events at the first match after the training session. In the exclusion condition participants were part of the team, but did not receive the ball from their team members. In the inclusion condition participants often received the ball. The inclusion and exclusion conditions were modeled to resemble ostracism (i.e., being ignored and excluded, Wesselmann & Williams, 2017), as manipulated with the “Cyberball” paradigm (Williams, Cheung, & Choi, 2000). In Cyberball, participants play a digital game of catch with two others and either receive the ball often, or no longer receive the ball after the first two throws.

Then, participants’ feelings after inclusion or exclusion were assessed on a 7-point scale (1 = *Not at all*, 7 = *Completely*). Participants indicated how relieved they would feel (“I would feel relieved” and “I would feel better off”, $\alpha = .90$), and how positive/negative they would feel (“I would feel...”, “sad”, “angry”, “hurt”, “happy”, “elated”, “cheerful”, first three items reverse coded, $\alpha = .97$, Van Beest & Williams, 2006). Participants then indicated to what extent they would regard exclusion as a preferable outcome (“I would prefer to be excluded during the games”, 1 = *Do not agree*, 7 = *Agree*). On the same scale, participants’ anticipated need fulfillment was assessed, by calculating the average of answers to 20 questions ($\alpha = .98$;

adapted from Van Beest & Williams, 2006), five measuring belonging (e.g., “I would have felt as one with the other players”), five measuring control (e.g., “I would have felt in control over the games”), five measuring self-esteem (e.g., “Playing the games would have made me feel insecure”), and five measuring meaningful existence (e.g., “I would think that my participation in the games was useful”).

Then, participants were asked to report how distressed they would have felt on the first training. Note that participants thus had to consider how they felt before they were included or excluded during the match. Distress during this experience was measured with three questions ($\alpha = .94$): “I would feel distressed”, “I was burdensome to the other players”, and “I would feel guilty towards the other players”, 1 = *Do not agree*, 7 = *Agree*. Finally, participants indicated their age and gender and were thanked, debriefed, and paid for participation. The procedures of this and all following studies were approved by the ethics committee of the Leiden University Institute of Psychology.

Results

For all variables reported below, cell means, standard deviations, and the full ANOVA statistics including effect sizes and planned contrasts, are reported in Table 3.1.

Before inclusion or exclusion. After having read the scenario, participants were asked to think back to how they would have felt during the training (i.e., when participants had learned whether they underperformed or performed equal to the group, and the group’s reaction, but had not yet been included or excluded from the team). With a 2 (social exclusion) \times 2 (performance) ANOVA, we tested whether for low-performers the experience was more negative than for equal-performers.

Distress. As predicted, the main effect of performance on distress during the experience was significant ($p < .001$). Low-performing participants reported more distress ($M = 5.41$, $SD = 1.67$) than equal-performing participants ($M = 1.95$, $SD = 1.37$). Unexpectedly, the Social Exclusion \times Performance interaction effect on distress was also significant ($p = .039$). This indicates that although participants answered questions about their feelings before inclusion/exclusion, they were influenced by knowing whether they would end up included/excluded. Low-performers in the exclusion condition felt more distressed than equal-performers, $F(1, 157) = 77.39$, $p < .001$, $d = 1.81$, but this difference was even more pronounced after inclusion, $F(1, 157) = 136.13$, $p < .001$, $d = 2.84$).

After inclusion or exclusion.

Need fulfilment and feelings. We reasoned that after inclusion (receiving the ball often) low-performing participants may experience lower need fulfilment and positive emotions than equal-performing participants. We also expected low-performers to feel more relieved after exclusion (not receiving the ball) than equal-performers. A series of 2 (social exclusion) \times 2 (performance) ANOVAs tested these hypotheses.

Need fulfilment. The social exclusion and performance main effects and the Social Exclusion \times Performance interaction effect were all significant (all $ps < .001$). As predicted, low-performers reported lower need fulfilment after inclusion than equal-performers, $F(1, 157) = 79.87, p < .001, d = -1.81$. In the exclusion condition, low-performers reported similar low levels of need fulfilment as equal-performers, $F(1, 157) = 0.00, p = .989, d = 0.00$.

Positive feelings. The main and interaction effects were significant (all $ps \leq .001$). As predicted, simple contrasts indicated that low-performers reported less positive feelings after inclusion than equal-performers, $F(1, 157) = 33.22, p < .001, d = -1.18$. By contrast, low-performers reported equally low levels of positive feelings after exclusion as equal-performers, $F(1, 157) = 0.93, p = .336, d = 0.23$.

Relief. The main effect of social exclusion on relief was significant ($p < .001$), while the main performance effect was not ($p = .157$). The Social Exclusion \times Performance interaction was significant ($p = .003$). As predicted, low-performers reported more relief by exclusion than equal-performers, $F(1, 157) = 10.12, p = .002, d = 0.64$. Inclusion led to equal relief for low-performing and equal-performing participants, $F(1, 157) = 1.33, p = .251, d = -0.29$.

Exclusion preference. With a 2 (social exclusion) \times 2 (performance) ANOVA we tested if indeed exclusion would be more preferred among low-performing vs. equal-performing participants. The main effect of social exclusion on exclusion preference was marginally significant ($p = .061$), while the main effect of performance was significant ($p < .001$), and the Social Exclusion \times Performance interaction was not ($p = .241$). As predicted, low-performing participants reported a higher preference for being excluded ($M = 3.23, SD = 2.07$) than equal-performing participants ($M = 1.75, SD = 1.39$).

Table 3.1

Means and SDs of the dependent variables as a function of Social Exclusion (SE) × performance (PF), including ANOVA results and planned contrasts (Study 3.1)

	Inclusion		Exclusion		Statistics			
	Low performance	Equal performance	Low performance	Equal performance		<i>F</i> (1,157)	<i>p</i>	η_p^2
Distress	5.66 ^a (1.63)	1.70 ^b (1.11)	5.17 ^a (1.70)	2.20 ^b (1.58)	SE	0.00	.977	.00
					PF	209.62	<.001	.57
					SE × PF	4.34	.039	.03
Need fulfilment	4.41 ^a (1.20)	6.12 ^b (0.58)	1.85 ^c (0.78)	1.85 ^c (0.77)	SE	644.72	<.001	.80
					PF	40.11	<.001	.20
					SE × PF	40.35	<.001	.20
Positive feelings	5.17 ^a (1.36)	6.43 ^b (0.65)	2.10 ^c (1.01)	1.89 ^c (0.78)	SE	606.40	<.001	.79
					PF	11.63	.001	.07
					SE × PF	22.76	<.001	.13
Relief	5.13 ^a (1.17)	5.48 ^a (1.17)	2.73 ^b (1.84)	1.78 ^c (1.02)	SE	209.58	<.001	.57
					PF	2.03	.157	.01
					SE × PF	9.35	.003	.06
Exclusion preference	3.13 ^a (1.88)	1.33 ^b (0.75)	3.33 ^a (2.26)	2.17 ^c (1.73)	SE	3.55	.061	.02
					PF	29.12	<.001	.16
					SE × PF	1.39	.241	.01

Note. Within rows, means with different superscripts differ significantly ($p < .05$ in planned contrasts analyses).

Discussion

Study 3.1 provided initial evidence that individual group members' performance in a group could impact how they experience inclusion and exclusion. First, participants indicated that being part of the group as a low-performer would be a relatively distressing experience. For low-performers, being included then would also result in lower levels of positive feelings, and lower need fulfilment than for equal-performers. Exclusion would remain equally aversive in terms of feelings and need fulfilment, as for equal-performers. However, compared to equal-performers, low-performers would be more relieved after exclusion. Low-performers even reported they would experience a relative preference for being excluded. It thus appears that performance in the group could be an important moderating factor. Low-performers not only indicated they would feel inclusion to be less positive, but would also experience positive aspects of exclusion – as it became relatively relieving and preferable.

Still, it must be noted that relief after exclusion would be less high than relief after inclusion, and that the relative preference for exclusion would not make exclusion less harmful. Low-performing group members would feel equally negative (in terms of need fulfilment and feelings) after exclusion as equal-performing group members, and for both groups exclusion would be more negative than inclusion. That low performance could make inclusion less positive and even points to positive elements of exclusion then in no way refutes that generally feelings, need fulfilment, and relief are affected more negatively by exclusion than by inclusion.

That low-performers would benefit less from inclusion seems contrary to previous research that found no differences in inclusion and exclusion experiences as a result of prior performance (Carter-Sowell et al., 2010). However, in that research, participants' performance was manipulated in a different task than the task in which they were included or excluded by their peers. Study 3.1 shows that when their performance remains relevant for the group, inclusion is less positive for low-performers than for equal-performers.

The current study had a few limitations. First of all, because we wanted to maximize engagement in the minimalistic written scenario set-up, we manipulated the feeling of underperformance in the group not only by noting participants' performance (low vs. equal to the team), but also by describing how the group felt about the participant being part of the team (annoyed vs. glad). How the group may feel about a member's underperformance is a crucial social aspect of the experience of underperforming in a group, that we considered relevant to provide in the hypothetical scenario. However, by explicitly mentioning the group's reaction, we cannot rule out that the differences between low- and equal-performers relied on this described response (as opposed to, or in addition to participants' underperformance). In Study 3.2, we tested whether the results replicate in a situation in which the group's response is not provided. In this experimental lab study, participants can make their own spontaneous inference of how the group may feel about them, given their performance. By testing whether the findings replicate in a lab study, we also overcome the limitation that the current scenario study relied on people's ability to report how they would feel in a hypothetical situation.

Secondly, participants were asked to indicate the distress they would have experienced *before* being included or excluded from the group. However, these measures were assessed *after* participants had read whether they would end up included or excluded. Their response

patterns indicated that participants' knowledge of their inclusion or exclusion affected how distressed they thought they would feel before knowing this. To eliminate this influence, in Study 3.2, distress was measured before participants were included or excluded.

Third, in this study participants in the equal performance condition read about their good performance in a group of "very experienced and competitive" team members. Although this served as a control condition in which participants' performance was equal to that of the other group members, stressing participants' good performance may instead have made them feel like they over-performed. In Studies 3.2 and 3.3, this ambiguity was avoided by providing exact feedback on both participants' and their team members' performance, as a score on a scale from 0 to 100.

Furthermore, the soccer scenario used in Study 3.1 modeled ostracism: Similar to the Cyberball paradigm (Williams, Cheung, & Choi, 2000), participants were neglected by not receiving the ball while they were playing the game. In this form of social exclusion, "ostracism", people are ignored by their peers – but exclusion can also occur through explicitly informing someone that they are unwanted (typically termed "rejection", Freedman, Williams, & Beer, 2016; Wesselmann & Williams, 2017). As an extension to Study 3.1, in Study 3.2 this latter form of social exclusion, rejection, was manipulated, so that participants were explicitly removed from the group and its activities by their peers. This also addresses a possible ambiguity of Study 3.1. There, participants may have reported their feelings and preferences about exclusion from the *activity* of playing soccer, but did not regard this as exclusion from the *group* of friends. In Study 3.2, this distinction between the group and the activity was minimized. As is the standard in social exclusion paradigms, groups were formed for an activity that participants performed together, which makes exclusion from the activity equivalent to exclusion from the group.

Study 3.2

Study 3.2 was an experimental lab study, in which participants' performance was manipulated to be either lower than, or equal to that of their group members. As in Study 3.1, we predicted that participants who performed lower than their group members would experience more distress than participants who performed equal to their group members. We also assessed the responses of low-performers and equal-performers to being included or excluded. We predicted that low-performers would experience lower need fulfilment and less positive feelings after inclusion than equal-performers. Although we anticipated participants

across conditions to be impacted equally by exclusion in terms of feelings and need fulfilment, we did predict that low-performing members would feel relatively relieved after being excluded, and would prefer exclusion more than equal-performing members.

In Study 3.1, we showed that underperforming (vs. equal-performing) group members expected to feel distressed while being part of the group. They expected to experience distress when their presence in the group hindered optimal group performance, and exclusion became more preferred and relieving. This suggests that low-performing group members are particularly concerned with the group and its performance, even when they are excluded from this group. To strengthen this claim, we tested whether, after exclusion, low-performers would like the excluding group more and care more about its performance than equal-performers.

Method

Participants and design. All hypotheses, measures, and analyses for this study were preregistered at the website of the Open Science Framework.³ As preregistered, we implemented a stopping rule, to cease data collection when approximately 160 individuals had participated. Eventually, 162 participants took part in this study at the Leiden University lab. Five participants were excluded for having participated in research with a similar manipulation before⁴, leaving 157 participants (127 of which were female, 30 male, mean age 19.59, $SD = 2.25$). A sensitivity analysis indicated that with $\alpha = .05$ and $\beta = .80$, a sample size of $N = 157$ could detect an effect size of $f = .23$, or $\eta_p^2 = .05$, in the 2 (social exclusion: inclusion vs. exclusion) \times 2 (performance: low vs. equal) between-subjects study.

Procedure and materials. In the lab, participants read and digitally signed the informed consent form. They were assigned to a group of three for a task in which they could earn money. Similar to other studies on exclusion, the responses of the two other “group members” actually were preprogrammed. In the task participants had to estimate as accurately and quickly as possible which of two pictures contained the most dots (based on the dot-estimation task, Gerard & Hoyt, 1974; used previously in a social exclusion context in Doolaard et al., 2020). All members achieved a score between zero and 100, allegedly based on their performance. As performance on this task is hard to estimate, we could manipulate

³ <https://osf.io/5t6gu>

⁴ Whether these participants were included or excluded from the analyses did not change the statistical significance/non-significance of any of the results.

participants' scores without raising suspicion. Participants first played a test round, but were informed that in the second round each team with an average team score of 70 or higher entered into a lottery. The three winning teams would receive a prize of €50 for each member in the team. After playing the test round, participants were told that all team members would see each other's individual scores, and the resulting average team score. Participants in the low performance condition learned that their team members achieved scores of 74 and 77, but that their own score was so low (24) that it lowered the average team score below 70 (to 58.3). They were reminded that in the second round this would be too little for the group to get a shot at winning one of the cash prizes.

In the equal performance (control) condition participants' score of 76 was approximately equal to that of their team members – together with their team members' scores (74 and 77) they achieved a score of 75.7. In the second round this would be enough for their group to enter the lottery. After receiving the scores for the test round, participants indicated their distress over the experience on five items ($\alpha = .94$) on a seven-point scale ("In the group I feel...": "*unpleasant - pleasant*", "*not at ease - at ease*", "*uncomfortable - comfortable*", adapted from Broekman, Koudenburg, Gordijn, Krans, & Postmes, 2019, and "I feel guilty towards the other players", and "I am a burden to the other players", 1 = *Absolutely not*, 7 = *Absolutely*).

Participants were told they would play the second round, in which an average team score of 70 points or more would be enough for their team to participate in the lottery. Before the second round commenced, participants could indicate for each of their two team members whether they wanted them in or out of the team. Crucially, in both conditions they were told that if two members both indicated they wanted a third member *out* of the team, this third member was excluded from the team. After indicating their decision and waiting for a few seconds, participants in the exclusion condition were informed that the two other players excluded them from the team, and would play the second round without them. In the inclusion condition, participants were informed that the constitution of the group remained the same, and that no one was excluded.

Then, participants in both conditions indicated their feelings ("I feel...": "*sad*", "*angry*", "*hurt*", "*happy*", "*elated*", "*cheerful*", $\alpha = .90$, 1 = *Absolutely not*, 7 = *Absolutely*, Van Beest & Williams, 2006), and need fulfilment on 7-point semantic differential scales (belonging: "*rejected-accepted*", self-esteem: "*devalued-valued*", control: "*powerless-powerful*",

meaningful existence: “invisible–recognized”, averaged into one need fulfilment score, $\alpha = .90$, Rudert & Greifeneder, 2016). Participants’ evaluation of their team members was measured with two items (“I have a positive impression of the other two players”, and reverse-coded: “I have a negative impression of the other two players”, $\alpha = .92$), as well as their hope for the group’s success (“I hope the other two players achieve a good score”). As a manipulation check we measured exclusion (“I have been excluded by my group members”). Participants were reminded of their group members’ decision to exclude/include them, and relief was measured (“After this decision I felt relieved”) as well as their preference to be excluded (“I wanted the other players to remove me from the group”). All these questions were answered on a 7-point scale, where 1 = *Absolutely not*, and 7 = *Absolutely*. For participants in the exclusion condition the experiment ended here.

Participants in the inclusion condition played the second round, and achieved a score of 75.7. Subsequently, participants had the chance to write about anything they noticed during the experiment⁵ and indicated whether or not they had participated before in a similar research. Finally, all participants were debriefed, thanked, and paid for participation. Later, the lottery was held among all participants, and three participants won €50.

Results

Before inclusion or exclusion. An independent *t*-test assessed differences in experienced distress between conditions, during the group task, before inclusion or exclusion.

Distress. As predicted, low-performers felt more distressed ($M = 5.01$, $SD = 1.12$) than equal-performers ($M = 1.98$, $SD = 0.85$), $t(155) = 19.49$, $p < .001$, $d = 3.12$.⁶

After inclusion or exclusion. For all variables reported below, cell means and standard deviations, as well as ANOVA results with effect sizes and planned contrasts, can be found in Table 3.2.

Exclusion manipulation check. A 2 (social exclusion) \times 2 (performance) ANOVA was performed to check if exclusion was manipulated successfully. The main effects of social exclusion, performance, and the Social Exclusion \times Performance interaction were all significant

⁵ Four participants in Study 3.2, and ten participants in Study 3.3, doubted whether their scores on the dot estimation task/their group members were real. Excluding these participants from the analyses did not change the statistical significance/non-significance of any of the results.

⁶ An exploratory 2 \times 2 ANOVA verified that only the performance main effect was significant ($F(1, 153) = 379.11$, $p < .001$, $\eta_p^2 = .71$), the exclusion main effect ($F(1, 153) = 0.39$, $p = .531$, $\eta_p^2 = .00$), and the Social Exclusion \times Performance effect ($F(1, 153) = 1.06$, $p = .304$, $\eta_p^2 = .01$) were not.

($ps \leq .004$). As predicted, exclusion led to higher reported feelings of exclusion than inclusion, but the interaction effect showed that among equal-performers the difference between exclusion and inclusion was even more pronounced, $F(1, 153) = 215.92, p < .001, d = 3.60$, than among low-performers, $F(1, 153) = 93.21, p < .001, d = 1.98$.

Need fulfilment and feelings. Two 2 (social exclusion) \times 2 (performance) ANOVAs assessed whether inclusion was less positive for low-performing participants than for equal-performing participants in terms of need fulfilment and positive feelings. We also expected low-performing group members to feel more relieved after exclusion than equal-performing group members.

Need fulfilment. The main effect of social exclusion on need fulfilment was significant ($p < .001$), the main effect of performance was not ($p = .954$). The predicted Social Exclusion \times Performance interaction was only marginally significant, ($p = .074$). Overall, participants reported less need fulfilment after exclusion ($M = 2.95, SD = 0.91$) than after inclusion ($M = 5.08, SD = 1.13$). Contrary to the prediction, the marginal interaction effect shows that low-performers did not report lower levels of need fulfilment after inclusion than equal-performers, $F(1, 153) = 1.78, p = .184, d = -0.27$. Exclusion yielded no difference either, $F(1, 153) = 1.47, p = .228, d = 0.32$. But, more in line with the gist of our prediction, for low-performers the difference between inclusion and exclusion, $F(1, 153) = 64.30, p < .001, d = 2.11$, was smaller than for equal-performers, $F(1, 153) = 107.78, p < .001, d = 2.10$.

Positive feelings. The main effect of social exclusion was significant ($p < .001$), and the performance effect was not significant ($p = .187$). As predicted, the significant Social Exclusion \times Performance interaction ($p = .001$) showed that after inclusion low-performers reported lower levels of positive feelings than equal-performers, $F(1, 153) = 11.70, p = .001, d = -1.01$. After exclusion, these differences were absent, $F(1, 153) = 2.16, p = .144, d = 0.28$.

Relief. The main and interaction effects were significant (all $ps < .001$). As predicted, simple contrasts demonstrated that low-performers felt more relief after exclusion than equal-performers, $F(1, 153) = 32.31, p < .001, d = 1.26$, while in the inclusion condition, this difference was not significant, $F(1, 153) = 1.29, p = .258, d = -0.26$.

Reflecting on inclusion or exclusion. A series of 2 (social exclusion) \times 2 (performance) ANOVAs assessed whether low-performing participants had wanted to be excluded more than equal-performing participants. Finally, we predicted that excluded low-performers would

reflect on the excluding group as less negative, and have higher hopes for the group to achieve a high score than excluded equal-performers.

Exclusion preference. The main social exclusion effect ($p = .298$), and the Social Exclusion \times Performance interaction were not significant ($p = .833$), while the main effect of performance was ($p < .001$). As predicted, low-performing participants wanted to a larger extent that their teammates had excluded them ($M = 3.49, SD = 1.86$) than equal-performing participants ($M = 1.55, SD = 0.95$).

Liking of group members. The main and interaction effects were significant (all $ps < .001$). In line with the prediction, simple contrasts show that low-performers liked the group members that excluded them more than equal-performers, $F(1, 153) = 44.89, p < .001, d = 1.26$. In the inclusion condition there was no significant difference, $F(1, 153) = 0.04, p = .851, d = -0.06$.

Preferred outcome for group members. Analyses revealed a similar pattern regarding participants' hope for a good group outcome for the excluding group. Main effects and the interaction effect were significant (all $ps < .001$). As predicted, low-performers hoped more that the group that excluded them would receive a high outcome than equal-performers did, $F(1, 153) = 41.78, p < .001, d = 1.07$. Again, in the inclusion condition, this difference was not significant, $F(1, 153) = 0.03, p = .872, d = -0.09$.

Table 3.2

Means and SDs of dependent variables as a function of Social Exclusion (SE) × Performance (PF), including ANOVA results and planned contrasts (Study 3.2)

	Inclusion		Exclusion		ANOVA Statistics			
	Low performance	Equal performance	Low performance	Equal performance	<i>F</i> (1,153)	<i>p</i>	η_p^2	
Exclusion manipulation check	1.20 ^a (0.51)	1.03 ^a (0.16)	4.00 ^b (1.93)	5.38 ^c (1.71)	SE	297.61	<.001	.66
					PF	8.48	.004	.05
					SE × PF	13.93	<.001	.08
Need fulfilment	4.93 ^a (0.82)	5.24 ^a (1.38)	3.09 ^b (0.93)	2.80 ^b (0.88)	SE	169.70	<.001	.53
					PF	.003	.954	.00
					SE × PF	3.23	.074	.02
Positive feelings	5.37 ^a (0.96)	6.15 ^b (0.53)	4.10 ^c (1.18)	3.76 ^c (1.30)	SE	125.23	<.001	.45
					PF	1.76	.187	.01
					SE × PF	11.80	.001	.07
Relief	5.20 ^a (1.69)	5.58 ^a (1.13)	4.15 ^b (1.90)	2.19 ^c (1.13)	SE	84.68	<.001	.36
					PF	10.85	.001	.07
					SE × PF	23.75	<.001	.13
Exclusion preference	3.34 ^a (1.91)	1.45 ^b (0.88)	3.64 ^a (1.83)	1.65 ^b (1.03)	SE	1.09	.298	.01
					PF	66.41	<.001	.30
					SE × PF	0.04	.833	.00
Liking of group members	6.28 ^a (0.97)	6.33 ^a (0.55)	4.63 ^b (1.28)	2.99 ^c (1.31)	SE	214.11	<.001	.58
					PF	21.93	<.001	.13.
					SE × PF	24.44	<.001	.14
Preferred outcome group members	6.78 ^a (0.57)	6.83 ^a (0.50)	6.51 ^a (0.85)	4.68 ^b (2.26)	SE	37.32	<.001	.20
					PF	20.53	<.001	.12
					SE × PF	22.62	<.001	.13

Note. Within rows, means with different superscripts differ significantly ($p_s < .05$ in planned contrasts analyses).

Discussion

In line with results from Study 3.1, Study 3.2 showed clear differences in how low-performers and equal-performers experienced inclusion and exclusion. Low-performers initially felt more distressed while they were part of the group, and they were also less positive after being included. Although low-performers' and equal-performers' need fulfilment and feelings were impacted similarly by exclusion, low-performers did experience exclusion as more preferable, and even relieving. Perhaps, these positive elements of being excluded also explain why low-performers (vs. equal-performers) were less likely to consider their experience of being removed from the group to be exclusion (in the manipulation check).

Together, Study 3.2 thus again demonstrated that although low performance did not make the experience of exclusion any less harmful in terms of feelings and need fulfilment, the experience of exclusion did have positive elements for low-performers. Additionally, excluded low-performers judged the group that just excluded them as more positive, and more strongly hoped that the excluding group would achieve a good outcome. This suggests that even after exclusion, concern for the group's performance remains high for low-performers.

Contrary to our predictions and the results of Study 3.1, inclusion did not result in lower need fulfilment for low-performing than for equal-performing group members. Possibly, that the group actively included low-performers despite their underperformance, to an extent compensated for the negative effects that underperforming in the group could otherwise have had on their need fulfilment. Still, the data of Study 3.2 did indicate that while need fulfilment was higher after inclusion than after exclusion, this difference was marginally less pronounced for low-performers than for equal-performers. This finding corresponds with the rationale that inclusion becomes less beneficial for low-performing group members. We conclude that inclusion is less positive for low-performing vs. equal-performing participants at least in terms of their feelings, and perhaps also in terms of their need fulfilment.

Study 3.3

Studies 3.1 and 3.2 showed that while exclusion impacted their needs and feelings, low-performers (vs. equal-performers) also experienced exclusion as relieving, and indicated a relative preference for being excluded. Importantly, this suggests that instead of understanding exclusion only as an undesirable state of ending up apart from the group, that people want to avoid at all times (Ouwkerk, Kerr, Gallucci, & Van Lange, 2005; Wesselmann & Williams, 2017; Williams, 2009), people can prefer exclusion to some extent – and this preference varies as a function of how people perform in the group. This fits with the idea that negative social interactions, including episodes of exclusion, may increase the desire for individuals to be alone (Ren, Wesselmann, & Williams, 2016; Wesselmann, Williams, Ren, & Hales, 2014).

But does this relative preference for exclusion indicate that people may also choose to leave the group in which they underperform? In Studies 3.1 and 3.2, preference for exclusion was assessed with a self-report measure. The means were slightly below the midpoint of the scale, but had a fairly high standard deviation, suggesting that some low-performing individuals indeed would prefer to leave the group, while others would not. If people with a

high preference for exclusion are ready to act on this preference, this gives rise to the possibility that some underperforming group members may actively remove themselves from the group when they have the chance. Study 3.3 tested this possibility. We predicted that the frequency with which people would leave, and thus end up apart from the group, would be higher among low-performing participants than among equal-performing participants.

Additionally, we expected that leaving the group could even improve low-performers' need fulfilment and feelings compared to when they were still part of the group. Studies 3.1 and 3.2 indicated that relative to being included, being excluded by their peers reduced low-performers' feelings and need fulfilment. However, when compared to the "baseline inclusion experience" of being part of the group, leaving the group could possibly improve low-performers' feelings and need fulfilment. We have shown that this initial experience of being part of the group induced feelings of distress among low-performers. Perhaps, they would also experience less positive feelings and less need fulfilment while they were part of the group as underperformers, which could be improved by leaving the group. Leaving after all ends the negative experience of underperforming in the group. The prediction that leaving the group can improve one's feelings and need fulfilment, further challenges the dominant notion in the literature that ending up excluded from the group only has negative outcomes (Williams, 2009). Because low-performers experienced exclusion as relatively relieving in Studies 3.1 and 3.2, we also predicted that low-performers who would choose to remain in the group (and thus would still experience considerable distress) would feel less relieved than those who would choose to leave the group.

Method

Participants and design. All hypotheses, measures, and analyses for this study were preregistered at OSF.⁷ As preregistered, we aimed to collect data of at least 120 participants, but continued data collection for the time assigned to us in the lab. Eventually, data of 130 participants were collected at the Leiden University lab. A total of 12 participants were excluded from the analyses for being exposed to a similar manipulation in prior research, leaving 118 participants (97 of which were female, 21 male, mean age 19.67, $SD = 2.09$). A sensitivity analysis indicated that with $\alpha = .05$, $\beta = .80$, and $N = 118$, an effect size of $\phi = 0.26$ could be detected for the Chi-square test measuring self-exclusion frequency. The experiment

⁷ <https://osf.io/gecxz>

was set up as a 2×2 mixed subjects design with low performance ($n = 60$) vs. equal performance ($n = 58$) as the between-subjects measure, and time (before vs. after the choice to leave/stay) as the within-subjects measure.

Procedure and materials. The procedure was largely similar to that of Study 3.2 and all variables were measured with the same items as in Study 3.2. Participants earned points in a dot estimation task, and were told that an average team score above 70 points in the second round entitled their team to participate in a lottery with three cash prizes of €50 for each team member. Participants received a low score (24), dropping the team average score below 70 (low performance condition) or a score of 76, approximately equal to that of their team members, establishing a team score of over 70 (equal performance control condition). After seeing their scores, participants indicated how distressed ($\alpha = .94$) they felt. They also indicated positive feelings ($\alpha = .88$) and need fulfilment ($\alpha = .88$) for the first time, and were given the choice to be or not be part of the group for the second round (“I do not want to be part of the group” vs. “I do want to be part of the group”). As not to confound the choice to leave the group with the advantage of being done early, participants were made to believe that if they left the group, they would have to perform an alternative task in the lab by themselves. Then, relief, and for the second time positive feelings ($\alpha = .87$), and need fulfilment ($\alpha = .90$) were measured. Finally, participants who chose to stay in the group played a second round of the dot estimation task, while for those who left the group, the experiment ended here. All participants indicated whether or not they had participated in an experiment with the same paradigm before, and had the chance to report anything they wanted to share about the experiment. Afterwards all participants were thanked, debriefed, and paid for participation. The lottery was held among all participants, three of which won €50.

Results

Before leaving or staying in the group.

Distress. As predicted, an independent t -test demonstrates that low-performing participants felt more distressed ($M = 4.76$, $SD = 1.14$) than equal-performing participants ($M = 2.18$, $SD = 0.80$), $t(116) = 14.15$, $p < .001$, $d = 2.61$.

Leaving the Group. As predicted, a Chi-square test indicated that low-performers chose to leave the group more often (43% of the cases) than equal-performers did (0% of the cases), $\chi^2(1, n = 118) = 32.24$, $p < .001$, $\phi = 0.52$.

Before vs. after leaving or staying in the group. Repeated Measures ANOVAs were performed to assess how participants' feelings and need fulfilment changed from before the choice to leave/stay in the group (i.e., when they started out as part of the group) to after this choice (i.e., when they left or stayed in the group). First, differences over time were compared between low-performing and equal-performing group members, irrespective of their choice to leave/stay in the group. The full statistics for these analyses can be found in Table 3.3. Then, we tested the prediction that among low-performers who chose to leave the group, this improved their feelings and need fulfilment compared to before making this choice. The full statistics for these analyses can be found in Table 3.4. None of the equal-performers chose to leave the group, rendering a contrast between staying and leaving on any variable impossible for this group. Finally, an independent *t*-test was used to test the prediction that low-performers who left the group felt more relieved than those who stayed.

Positive feelings. The first Repeated Measures ANOVA included positive feelings over time (before vs. after making the choice to stay/leave) as the within-subjects factor, and performance (low vs. equal) as the between-subjects variable. The effect of time on positive feelings was significant, as were the main effect of performance and the Time \times Performance interaction (all $ps \leq .001$). Contrasts indicated that low-performing group members felt better after having made the choice to leave/stay than before, $F(1, 116) = 25.29, p < .001, d = -0.44$. By contrast, equal-performing group members felt equally well before and after having made this choice, $F(1, 116) = 0.02, p = .898, d = -0.01$.

The second Repeated Measures ANOVA focused only on low-performers, and included positive feelings over time (before vs. after the choice to stay/leave) as the within-subjects factor, and choice outcome (leaving vs. staying in the group) as the between-subjects variable. The main effect of time on positive feelings was significant, ($p < .001$). The main effect of choice outcome and the Time \times Choice Outcome interaction were not significant ($ps \geq .353$). Results indicate that people's positive feelings were higher after leaving and staying in the group. There were no predictions about the results of staying in the group, but the data fitted the preregistered prediction that leaving the group would increase low-performers' positive feelings, $F(1, 58) = 8.68, p = .005, d = -0.46$.

Need fulfilment. The same pattern was found for need fulfilment over time, between low-performers and equal-performers. The effects of time, performance, and the Time \times Performance interaction effect were significant (all $ps \leq .006$). Contrasts indicated that low-

performing group members felt higher need fulfilment after having made the choice to leave/stay in the group than before, $F(1, 116) = 18.90, p < .001, d = -0.58$. By contrast, equal-performing group members felt equally high need fulfilment before and after having made this choice, $F(1, 116) = 0.12, p = .734, d = -0.04$.

The results of the second Repeated Measures ANOVA, which focused only on low-performers, demonstrated a significant effect of time ($p < .001$), while the main effect of choice outcome and the Time \times Choice Outcome interaction were not significant (all $ps \geq .468$). Need fulfilment thus improved for participants who left, but also for those who stayed in the group. Again, we had no predictions about the results of staying in the group. But, as predicted, participants had higher need fulfilment after choosing to leave the group than before having made this choice, $F(1, 58) = 8.97, p = .004, d = -0.58$.⁸

Relief. Among low-performing participants, an independent t -test indicated that participants who chose to leave the group felt marginally more relieved ($M = 4.62, SD = 1.70$) than participants who chose to stay in the group ($M = 3.85, SD = 1.40$), $t(58) = 1.91, p = .061, d = 0.49$.

Table 3.3

Positive feelings and Need fulfilment as a function of Time (T) \times performance (PF), including Repeated Measures ANOVA results and planned contrasts (Study 3.3)

	Before		After			ANOVA Statistics		
	Low performance	Equal performance	Low performance	Equal performance		$F(1,116)$	p	η_p^2
Positive feelings	4.06 ^a (1.02)	5.64 ^b (0.77)	4.51 ^c (1.02)	5.65 ^b (0.79)	T	13.08	<.001	.10
					PF	77.24	<.001	.40
					T \times PF	11.80	.001	.09
Need fulfilment	3.32 ^a (0.86)	4.84 ^b (1.21)	3.86 ^c (1.01)	4.89 ^b (1.15)	T	10.83	.001	.09
					PF	52.93	<.001	.31
					T \times PF	7.87	.006	.06

Note. Within rows, means with different superscripts differ significantly ($ps < .05$ in planned contrasts analyses).

⁸ Exploratory cross-study analyses show that for low-performers the experience of being excluded by others (Study 3.2) is not characterized by lower need fulfilment ($M = 3.09, SD = 0.93$) or less positive feelings ($M = 4.10, SD = 1.18$) than the experience of being part of the group as an underperformer (Study 3.3, $M = 3.32, SD = 0.86, t(97) = -1.27, p = .209, d = -0.26$, and $M = 4.06, SD = 1.02, t(97) = 0.18, p = .858, d = 0.04$, respectively). Moreover, results indicate that for low-performers being excluded by others (Study 3.2) leads to lower need fulfilment ($M = 3.09, SD = 0.93$) than choosing to leave the group (Study 3.3, $M = 3.89, SD = 1.07, t(63) = -3.20, p = .002, d = -0.80$), but not to less positive feelings ($M = 4.10, SD = 1.18$, after being excluded in Study 3.2, vs. $M = 4.40, SD = 1.03$, after leaving in Study 3.3, $t(63) = -1.06, p = .295, d = -0.27$).

Table 3.4

Experiences of low-performing group members as a function of Time (T) × Choice Outcome (CO), including Repeated Measures ANOVA results and planned contrasts (Study 3.3)

	Before		After			ANOVA Statistics		
	Staying in the group	Leaving the group	Staying in the group	Leaving the group		F(1,58)	p	η_p^2
Positive feelings	4.18 ^a (1.00)	3.92 ^a (1.04)	4.59 ^b (1.02)	4.40 ^b (1.03)	T	17.14	<.001	.23
					CO	0.88	.353	.02
					T × CO	0.09	.768	.00
Need fulfilment	3.39 ^a (0.92)	3.23 ^a (0.78)	3.83 ^b (0.98)	3.89 ^b (1.07)	T	14.29	<.001	.20
					SE	0.07	.796	.00
					T × SE	0.53	.468	.01

Note. Within rows, means with different superscripts differ significantly ($ps < .05$ in planned contrasts analyses).

Discussion

Oposing the idea that ending up excluded is something that people necessarily avoid at any cost (Williams, 2009), Study 3.3 demonstrated that low-performers vs. equal-performers were relatively likely to choose to leave the group. Compared to equal-performing group members, low-performing group members felt distressed, and had less positive feelings and lower need fulfilment when they were initially part of the group. Notably, there was a main effect of the decision low-performing participants made, which indicated that any decision (staying as well as leaving the group) improved their feelings and need fulfilment. Given the dominant idea in the exclusion literature that ending up excluded from a group is aversive regardless of the context in which it occurs (Williams, 2007, 2009), it is noteworthy that this main effect of improved need fulfilment and feelings in part was driven by participants who ended up apart from the group. Furthermore, our results indicated that participants who chose to leave the group were marginally more relieved than those who chose to remain in the group.

Study 3.4

Study 3.3 showed that when participants chose to leave the group, this improved their need fulfilment and feelings, relative to when they were still part of the group. However, people who chose to remain part of the group also felt better after making this choice. This leaves open the possibility that *being able to choose* drove the positive effects of leaving and staying in the group alike – for example because having agency over such a decision could be

empowering (see Chua & Iyengar, 2006). In Study 3.4, we put this possibility to the test. First, an exploratory test investigated whether low-performers' choice to leave (vs. stay in) the group was driven by an increased experience of distress while underperforming in the group. If so, this suggests that choosing the desired outcome is a meaningful coping strategy of the experienced distress, beyond the possible empowering effect of making any choice. Second, we tested our main hypothesis, that low-performing participants would experience improved feelings and need fulfilment after leaving the group compared to before. We predicted that this would occur regardless of whether participants would decide themselves about leaving the group, or whether this decision was made for them. Furthermore, we again tested whether for low-performers, leaving the group would be more relieving than staying.

Method

Participants and design. All hypotheses, measures, and analyses for this study were preregistered at the OSF⁹. As preregistered, we aimed to collect data of 300 participants: If at least one in six participants chose the same preference (to leave/stay in the group), this would suffice to detect interaction effects of $\eta_p^2 = 0.05$ ($f = 0.23$) with a power of $\beta = .80$, at $\alpha = .05$, (repeated measures correlated at $r > .10$). In total, we gathered data of 299 participants at the online Prolific network, 39 of which were removed from the data set for not passing the attention checks. A sensitivity power analyses suggested that with the remaining $N = 260$ (185 female, 73 male, 2 "other"; mean age 33.51, $SD = 11.30$), and measures over time correlated at $r \geq .53$, this study could detect effects of $\eta_p^2 \geq 0.01$ ($f \geq .10$), with $\beta = .80$, at $\alpha = .05$. The experiment was set up as a Three-way Repeated Measures design, with decision (own choice vs. chance) and outcome (leaving vs. staying in the group) as the between-subjects factors, and time (pre vs. post decision) as the within-subjects factor.

Procedure and materials. The study was set up similar to that of Study 3.3, with a few differences. First, the equal-performance condition was removed, so all participants in this study underperformed at the dot-estimation task. Second, to strengthen the manipulation of underperformance for this online study, participants played two instead of one test-round of the dot-estimation game, and received low scores after both rounds, while their team members scored high. Also, the game explanation was extended, and attention checks were

⁹ <https://osf.io/vcs5x>

added to filter out participants who did not pay attention to the explanation of the dot-estimation game.

After receiving information about their poor performance, participants answered the same questions about distress ($\alpha = .91$), need fulfilment ($\alpha_{t1} = .79$), and positive feelings ($\alpha_{t1} = .83$), as in Study 3.3. The third change compared to Study 3.3, was the decision factor that was added to the design (the “own choice” vs. “chance” condition). Participants were first asked to indicate their preference for leaving or staying in the team for the final round (“I would prefer (not) to be part of the group that plays the final round”). In the “own choice” decision condition, participants’ indicated preference determined whether they would leave or stay in the group. In the “chance” condition, participants were thanked for providing their preference, but told that regardless of this preference, the computer would determine randomly whether they would stay or leave the group. Unbeknownst to the participants, the computer always determined the outcome that was in line with participants’ indicated preference, in order to keep that aspect constant across conditions. After answering the same question about relief as in Study 3.3, and questions about need fulfilment ($\alpha_{t2} = .88$) and positive feelings ($\alpha_{t2} = .88$) for a second time. In addition, a manipulation check of the decision condition was added. Participants read “I received information that...” and indicated the correct response “the computer determined whether I would remain part of the group or not”, or “I decided myself whether I would remain part of the group or not”. Then, participants were debriefed, thanked, and paid for their participation. The lottery was held among all participants, three won £50.

Results

First, a preregistered exploratory analysis tested whether participants who preferred to leave the group had felt more distressed while they were part of the group than participants who preferred to stay in the group. Then, we tested the most important hypothesis, that participants who left the group would feel better after leaving than before. We expected this to occur, regardless of whether participants made the choice to stay or leave themselves, or whether the computer determined this by chance. We also tested if participants who left the group felt more relieved than participants who stayed in the group.

Preference to Leave or Stay in the Group. Before the main analyses, we first checked the distribution of participants who left vs. stayed in the group. A chi-square test indicated that 60% of the participants preferred to leave the group, and 40% preferred to remain – there

were no differences in these percentages between participants who were assigned to either decision condition (own choice vs. chance), $\chi^2 = (1, N = 260) = 0.02, p = .900, \phi = -0.01$.

Distress. An exploratory Two-way ANOVA was performed with decision (own choice vs. chance) and outcome (leaving vs. staying in the group) as factors, and participants' distress while they were initially part of the group (the pre-measure) as the dependent variable. This tested whether participants' distress while they were part of the group, was related to their later preference to leave or stay in the group (see Table 3.5). The fully significant main effect of Outcome supports our hypothesis, and so does the higher order Decision \times Outcome interaction with $p = .069$, that is reported here. In line with our hypothesis, this interaction effect demonstrates that in the "own choice" condition, participants who left the group had felt more distressed while they were part of the group than participants who stayed, $F(1, 256) = 27.56, p < .001, d = 1.12$. In the "chance" condition, again in line with our hypothesis, those who left had also felt more distressed than those who preferred to stay, although this difference was less pronounced, $F(1, 256) = 10.75, p = .001, d = 0.44$.

Unrelated to our hypothesis, the significant main effect of decision showed that participants in the "chance" condition had felt more distressed while they were part of the group, than participants in the "own choice" condition. Because assignment to either decision condition happened randomly, and only *after* participants had indicated how distressed they felt, this effect shows a coincidental difference in prior distress between the decision conditions¹⁰. The marginally significant Decision \times Outcome interaction suggested that after leaving/staying in the group, this initial difference between the chance vs. own choice condition was still apparent among those who preferred to remain in the group $F(1, 256) = 7.29, p = .007, d = -0.57$, but no longer among those who preferred to leave $F(1, 256) = 0.17, p = .678, d = -0.09$.

Need Fulfilment and Positive Feelings. Two Repeated Measures ANOVAs were performed, with time (pre vs. post the decision to leave/stay in the group) as the within-subjects factor, decision (own choice vs. chance) and outcome (leaving vs. staying in the group) as the between-subjects factors, one with need fulfilment and one with positive feelings as the dependent variable. We tested the hypothesis that leaving the group would

¹⁰ To control for the influence of the disbalance in distress between both decision conditions, all following analyses were also performed with distress included as a co-variate. These did not lead to different conclusions for any of our hypotheses than the results reported in the manuscript.

improve participants' need fulfilment and feelings over time, regardless of whether they chose so themselves, or that a computer determined this by chance. The statistics of all main and interaction effects can be found in Table 3.6.

Need fulfilment. A significant Time \times Outcome interaction supported that, as predicted, people's need fulfilment after leaving the group was higher ($M = 2.82, SD = 1.23$) than before ($M = 2.60, SD = 1.03$), $F(1, 256) = 8.04, p = .005, d = 0.19$. Additionally, participants had higher need fulfilment after staying in the group ($M = 3.99, SD = 1.24$), compared to before ($M = 2.96, SD = 1.31$), and this difference was even greater than among those who left, $F(1, 256) = 84.61, p < .001, d = 0.81$. Further supporting our hypothesis, a significant Decision \times Outcome interaction demonstrated that among people who left the group, their need fulfilment remained unaffected of whether they decided to leave themselves, ($M = 2.65, SD = 1.96$) or that a computer randomly determined this ($M = 2.73, SD = 2.03$), $F(1, 256) = 0.23, p = .635, d = -0.04$. Among participants who stayed in the group, whether this decision was made by them, or at random, did affect their need fulfilment, ($M = 3.68, SD = 2.37$ vs. $M = 3.24, SD = 2.51$, respectively), $F(1, 256) = 4.96, p = .027, d = 0.18$.

Positive Feelings. A significant Time \times Decision interaction demonstrated that when participants decided for themselves, they felt better after leaving/staying in the group ($M = 3.77, SD = 1.30$) than before ($M = 3.17, SD = 1.23$), $F(1, 256) = 35.35, p < .001, d = 0.47$. When the computer determined whether they left or stayed in the team, the difference after ($M = 4.10, SD = 1.44$) vs. before ($M = 3.00, SD = 1.13$) was even more pronounced $F(1, 256) = 96.77, p < .001, d = 0.85$. This supports our hypothesis about participants who preferred to leave: after leaving, they felt better than before. To be complete, we further report the marginally significant Decision \times Outcome interaction, which indicated that when participants left the group, they felt marginally better when a computer randomly determined this ($M = 3.44, SD = 1.99$), than if they decided this themselves ($M = 3.12, SD = 1.99$), $F(1, 256) = 3.85, p = .051, d = 0.16$. For participants who stayed in the group, this difference was not close to significance, ($M = 3.80, SD = 2.36$ vs. $M = 3.93, SD = 2.39$, respectively), $F(1, 256) = 0.48, p = .488, d = -0.05$.

Together the results support the hypotheses that both participants' need fulfilment and positive feelings improved after they left the group, compared to before. This effect was not dependent on that participants made their own choice about leaving the group. If a computer randomly determined that they would leave, the positive effect even appeared to be stronger.

Relief

A Two-way ANOVA with decision and outcome as factors, was performed to test whether participants who left the group felt more relieved than participants who stayed in the group (see Table 3.5). The fully significant main effect of outcome was in line with our hypothesis, but we report the higher order Decision \times Outcome interaction effect with $p = .085$. This effect suggests that participants felt more relieved after leaving the group than after staying, $F(1, 256) = 13.81, p < .001, d = -0.51$. However, this was not the case when they decided this themselves $F(1, 256) = 1.95, p = .164, d = -0.10$. Our hypothesis that participants would feel more relieved after leaving the group than after staying, thus was only supported when participants did not make the choice to leave or stay themselves.

Table 3.5

Relief and Distress as a function of Decision (D) \times Outcome (O), including planned contrasts (Study 3.4)

	Staying in the group		Leaving the group			ANOVA Statistics		
	Own choice	Chance	Own Choice	Chance		$F(1,116)$	p	η_p^2
Distress	4.95 ^a (0.86)	5.61 ^b (1.40)	6.04 ^c (1.07)	6.13 ^c (0.92)	D	25.39	<.001	.09
					O	5.55	.019	.02
					D \times O	3.35	.069	.01
Relief	4.00 ^a (1.40)	4.14 ^a (1.54)	4.38 ^a (1.69)	5.21 ^b (1.56)	D	13.36	<.001	.05
					O	5.99	.015	.02
					D \times O	2.99	.085	.01

Note. Within rows, means with different superscripts differ significantly ($ps < .05$ in planned contrasts analyses).

Table 3.6

Main and Interaction Effects of the Three-way Repeated Measures ANOVA with Time (T) as the Within-Subjects Factor, and Decision (D), and O (Outcome) as Between-Subjects Factors (Study 3.4)

	Need fulfilment			Positive feelings		
	<i>F</i> (1,256)	<i>p</i>	η_p^2	<i>F</i> (1,256)	<i>p</i>	η_p^2
T	79.57	<.001	.24	126.01	<.001	.33
D	2.03	.155	.01	0.09	.769	.00
O	35.69	<.001	.12	17.07	<.001	.06
T × D	1.49	.224	.01	9.18	.003	.04
T × O	28.46	<.001	.10	1.80	.181	.01
D × O	4.11	.044	.02	2.87	.091	.01
T × D × O	1.36	.245	.01	1.78	.184	.01

Discussion

The data support our hypotheses. First, an exploratory analysis indicated that people who preferred to leave the group had previously felt more distressed about being part of the group, than people who preferred to stay in the group. This suggests that participants' choice to leave the group was related to the higher distress they felt while they underperformed in the group. Moreover, for people who preferred to leave, leaving the group improved their need fulfilment and feelings, and this occurred both when they chose to leave, and when this decision was made for them. Although leaving the group clearly improved participants' need fulfilment and feelings compared to when they were part of the group, a notable share of participants (40%) also preferred to stay in the group. We did not specify hypotheses for this group, but the data suggest that, in line with results from Study 3.3, staying in the group also improved their feelings and need fulfilment. Overall, feelings and need fulfilment were even higher among participants who stayed than among participants who left the group. Our last hypothesis, that participants would feel more relieved after leaving the group than after staying, was supported in the case where the computer decided this for them, but not when low-performers decided this themselves.

Study 3.4 thus rules out the possibility that people only feel better after removing themselves from the group because being able to make this choice empowered them. In fact,

we showed that when people left the group, they experienced equally improved need fulfilment when they made this choice themselves, as when the computer did. Moreover, the improvement in positive feelings and relief was even larger when the computer determined their exclusion, than when participants decided this themselves.

General Discussion

While theories on belonging and social exclusion generally highlight the negative consequences of exclusion, the current research draws attention to the fact that exclusion can nevertheless be a preferred outcome for some group members, and that ending up apart from the group can even be associated with positive consequences. For low-performers, being part of the group is characterized by considerable feelings of distress. Being included by their group members is also less positive for them than for equal-performers. Although being excluded by their peers does come with negative feelings and threatened need fulfilment, low-performers also experienced exclusion as relatively relieving and preferable. This article even demonstrated that while no equal-performing group members chose to leave the group, a substantial number of low-performers did choose to leave. Leaving the group improved low-performers' feelings and need fulfilment relative to when they were initially part of the group, regardless of whether leaving the group was their own choice or this outcome was determined randomly by a computer.

The finding that in Studies 3.3 and 3.4, between 40% and 57% of the underperforming group members preferred to remain part of the group, and that this choice also improved their feelings and need fulfilment, suggests that for underperformers, both leaving and staying in the group may have benefits – perhaps for different reasons, for different subgroups of people¹¹. The findings of Study 3.4 suggested that especially participants who had felt more distressed while they were underperforming in the group, were more likely to choose to leave the group later on. Crucially, what these findings show is that, for some people, ending up apart from the group is preferable. When underperformers are excluded by others, they do not only feel negative, but also relieved, and when they have the chance they choose to leave the group, which restores their feelings and need fulfilment. In addition to a broad literature that characterizes exclusion as something fundamentally negative (Williams & Nida, 2016),

¹¹ An exploratory analysis (see Supplemental Material Chapter 3, in the Appendix) on the distress item that measured guilt, suggested that participants who left (vs. stayed in the group) were participants with elevated levels of guilt while underperforming in the group.

because it results in people's separation from the group (Kerr & Levine 2008; Spoor & Williams, 2007; Williams, 2009), we thus show that people's experiences of ending up apart from the group are more versatile. While the negative reaction to ending up excluded from a group is often likened to physical pain (Eisenberger, 2012; MacDonald & Leary, 2005), that should occur regardless of the situation in which it is experienced (Fayant, Muller, Hartgerink, & Lantian, 2014; Gonsalkorale & Williams, 2007; Koudenburg et al., 2011; Zadro, Williams, & Richardson, 2004), this research shows that ending up apart from a group can also restore need fulfilment and feelings. The context in which exclusion occurs then may not only be able to attenuate the negative impact of exclusion (Hartgerink et al., 2015), but could also make the impact of ending up apart from the group decidedly positive. This research thus shows how far the influence of the context can go in moderating this experience, and thereby stresses the importance of considering the context in which exclusion from a group occurs, to understand how people respond to it (see Rudert & Greifeneder, 2016).

Attending to possible positive outcomes of exclusion is not to deny that exclusion is generally hurtful, and typically more negative than inclusion. In line with previous findings (e.g., Williams, 2009), even group members who felt negative for underperforming experienced less relief, need fulfilment, and positive feelings after being excluded than after being actively included by their peers (Studies 3.1 and 3.2). Nevertheless, the outcomes of these comparisons may in part also be driven by the positive effects of being included by others (for a similar point, see Dvir, Kelly, & Williams, 2019; Simard & Dandeneau, 2018). Instead of comparing exclusion to actively being included by others, in Studies 3.3 and 3.4, ending up apart from the group was compared to the, arguably more neutral, baseline state of being part of the group. Results showed that ending up apart from the group by their own choice, or by chance, improved low-performing group members' state compared to their state while they were part of the group.

It is important to note, however, that leaving the group by one's own choice or by chance, as in Studies 3.3 and 3.4, may also be different than being removed from the group by one's peers (as in Studies 3.1 and 3.2, and as exclusion is typically portrayed in the literature, Zadro & Gonsalkorale, 2014). This opposes the idea that it does not matter how people end up excluded from a group, because the fear of ending up apart from the group is central to the unmitigated aversiveness of exclusion (Kerr & Levine, 2008; Williams, 2009). It is, however, in line with other theories, that suggest that being excluded by others is not only

painful because people end up alone, but also because it signals negative evaluations from victims' group members – i.e., others appear to have reasons not to want them in the group (see Leary, 2001). To the extent that exclusion is painful because it signals negative evaluations from one's peers, choosing to leave the group may be less harmful than being excluded by others. Exploratory cross-study analyses on the data of Studies 3.2 and 3.3 (see footnote 6) did suggest that when people were excluded by their peers (Study 3.2), they had lower need fulfilment than when they chose to leave the group (Study 3.3), but no differences in positive feelings were found. Moreover, these analyses suggested that for underperformers, being part of the group (Study 3.3) was as harmful for participants' need fulfilment and feelings as being excluded by their peers (Study 3.2). Future research could look further into the possible differences in impact between choosing to leave the group and being excluded by one's peers. Possibly the choice to leave the group could give people more control over the situation, and this sense of control can serve as a buffer against possible negative effects of ending up excluded (see Kay, Whitson, Gaucher, & Galinsky, 2009).

Interestingly, if exclusion by others is indeed more hurtful than choosing to leave the group, one of the motives that people may have to remove themselves from the group, could be to avoid the impact of being excluded by others. Furthermore, underperformers may choose to leave to improve their chances of being re-included in the group in future situations in which performance is less relevant: Groups may maintain a more favorable image of underperformers who did vs. did not sacrifice their state of inclusion to protect group performance, and hence be more likely to include them in the future. This may be especially relevant in situations where people perform different types of activities with the same group (and hence quitting the activity is not the same as quitting the group). In that context, it is important to repeat that the current research has looked specifically at how people respond to ending up apart from the group when they underperformed at a task that was focal to the group. For other groups (e.g., a group of friends, as opposed to a sports team) task-performance may be less important, and results may differ. However, just as group members' lack of skill can hold a task-focused group back, members could feel that they are holding a social group back from performing its core social activities for other reasons (e.g., their lack of money, dietary restrictions, or some physical disability). Future research can see if in such situations, being part of the group also leads to lower need fulfilment and feelings, and whether quitting the activity and/or the group may become preferable and beneficial.

Besides the performance element that was focal for the groups in our studies, another important aspect of the groups that were researched in this article, was that they were newly formed for the purpose of the task. This resembles those real-life examples in which people meet with their group for the first time, and have a clear performance goal. Such groups are the standard in experimental research on social exclusion (see e.g., Williams & Nida, 2011), and these groups are meaningful to people at least to the extent that exclusion consistently impairs their feelings and need fulfilment (Williams, 2007) – as was also the case in the current studies. It is interesting to consider whether the effects of underperforming that are documented in this study, would be similar for people who have a longer history with their group, and consider the group more important. On one hand, underperformers could be more unwilling to leave such important groups, and prefer inclusion regardless of their performance. On the other, underperforming could be experienced as more distressing, the more important people consider the group that they are holding back, which could make the option to leave more preferable and positive. Future research can establish exactly how underperformers may experience inclusion and exclusion from groups with which they share a longer history, that may be experienced as more important.

We have demonstrated that underperforming in a group evokes feelings of distress. That people experience distress helps to understand why inclusion feels less good, and ending up apart from the group becomes preferable and even beneficial. However, besides this personally aversive experience, more social motives may also contribute to these outcomes. That participants were concerned with the group's outcome, even after they were excluded (Study 3.2), indicates that minimizing their impact on the group may have been an important motive for them. This social motive may in part be driven by guilt, as the guilt that people experience when their actions negatively impact others, has often been described to serve as a drive for people to reduce or repair the harm they have done to others (Baumeister et al., 1994; Cosmides & Tooby, 2013, Miceli & Castelfranchi, 2018; Tangney, Stuewig, & Mashek, 2007). Future studies could look into the effect of guilt on the evaluation of ending up included or excluded from the group, and focus on distinguishing it from other possibly relevant emotions like shame, jealousy, and revenge.

It must be noted that besides the immediate distress and social motives, people may also be less positive about inclusion, and prefer exclusion when they underperform, because they can expect to earn less from being part of the group. Their low performance may not only

reduce the total group outcome – but also their own share. In line with this, in Studies 3.2 through 3.4, low-performing participants had a lower expected outcome than equal-performing participants, as their underperformance lowered their group’s chances of winning a cash prize. Still, low-performing participants preferred and chose to leave the group, although this further reduced their own chance of winning a cash prize to zero – indicating that participants did not only consider their personal economic outcome. Presumably, both the experience of negative feelings while part of the group, and social motives contributed to making it more preferable for low-performing group members to end up apart from the group, while their low expected outcome made the alternative of staying in the group less attractive. When, by contrast, individual outcomes of being part of a group become increasingly high, at some point these outcomes may start to outweigh the downside of distress that low-performers experience when they are part of a group.

In this research, we have shown that ending up excluded from the group can be a preferable outcome for underperforming group members. This preference was demonstrated in a situation with a strong push-factor: people felt distressed for underperforming in the group. This idea that ending up excluded from the group can be preferable, is a novel contribution to the social exclusion literature, but corresponds with literature on the positive effects of solitude. In that literature, freedom from social pressure has also been identified as one of the push-factors that motivates people to enjoy time alone (Long & Averill, 2003). This literature shows that solitude can also be experienced as positive because it promotes creativity, intimacy (i.e., an intimate connection to the self), and spirituality (Burger, 1995; Long & Averill, 2003). Future research can test if people may also seek to leave groups when they experience these or similar pull-factors.

This research contributes to a growing literature that stresses the importance of considering the context in which inclusion and exclusion occur, to understand fully how people experience it. Specifically, it demonstrates that people’s performance in the group is an important factor that influences their experiences of inclusion and exclusion. Compared to equal-performing group members, low-performing group members feel distressed, inclusion becomes less positive, and exclusion, although still harmful, becomes more preferred. Moreover, underperformance can even motivate people to leave the group, and this can restore their need fulfilment and positive feelings. We conclude that the spectrum of

experiences that people can have as a result of ending up apart from the group, is broader than the negative experiences typically considered in the literature.

