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ARTICLE

Your needs or mine? The role of allies' needs and their perceptions of disadvantaged groups' needs in motivating solidarity-based actions

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Abstract

We propose a new motivational model that integrates self-determination theory (with a focus on basic needs) with social-psychological research on allyship and solidarity to better understand when and why allies may engage in different actions to address social injustice. We theorize that normative (e.g., donations and protesting) and non-normative (e.g., blocking highways and disrupting events) solidarity-based actions are motivated by allies' basic needs (measured at the individual and group levels) as well as their perception of disadvantaged groups' basic needs (measured at the individual and group levels). We tested the model in two cross-sectional studies using two different contexts: English citizens' solidarity (i.e., allies from a high-status group) with Ukrainian refugees and students' solidarity (i.e., allies from a low-status group) with the striking university employees in the United Kingdom ($N_{total} = 1232$). In both studies, we found that the more allies' needs were satisfied, the more likely they were to engage in normative solidarity actions. In contrast, intentions to engage in non-normative solidarity actions were predicted by frustration of allies' needs. Perceptions of disadvantaged group's needs predicted engagement in both normative and non-normative actions. Notably, high-status allies' solidarity was driven by both individual and group-level needs, whilst low-status allies were only motivated by group-level needs.

KEYWORDS

allyship, basic psychological needs, collective action, high-status allies, intraminority solidarity, need frustration, need satisfaction, normative and non-normative actions, self-determination, solidarity-based actions

INTRODUCTION

"Why do you people insist on seeing every socio-political conflict through the myopic lens of your own self-actualization? This isn't about you. So either get with it, or get out of the way." —
Bo Burnham, comedian

In the context of social justice movements, allies are individuals from high and low-status groups (e.g., White and Hispanic/Latino individuals participating in the Black Lives Matter movement) who engage in solidarity actions with groups affected by injustice (Craig et al., 2020; Kutlaca et al., 2020). Allies' support for social justice movements is essential for generating broader and long-lasting social change (Louis, 2009). However, their motivations to engage in solidarity actions are diverse and may include other-focused concerns such as moral values and identification with outgroups, but also self-focused concerns over ingroup's image and personal gain (Kutlaca et al., 2020; Kutlaca & Radke, 2023; Louis et al., 2019; Radke et al., 2020; Yip et al., 2024). This manuscript seeks to advance our current understanding of the motivations underlying solidarity-based actions. We draw on Social Identity approaches (Parker et al., 2019; Tajfel & Turner, 1979), basic psychological needs within the Self-determination theory (Chen et al., 2015; Ryan, 2023), and recent efforts to integrate the two theoretical approaches (Kachanoff, Wohl, et al., 2020; Thomas et al., 2017; Yip et al., 2023) to propose that (1) the basic psychological needs of allies and (2) the perceived basic psychological needs of the affected or disadvantaged outgroup motivate allies' engagement in solidarity-based actions.

We propose a new conceptual model to explain how needs-based motivational factors can lead to engagement (or disengagement) in solidarity-based actions in support of disadvantaged groups. We differentiate between two types of solidarity-based actions, namely normative actions, which align with norms and laws in each cultural context (e.g., signing petitions and donations), and non-normative, which violate those norms and laws (e.g., blocking highways or spraying graffiti; Tausch et al., 2011; Wright et al., 1990). The proposed model (see Figure 1) advances the literature on solidarity-based actions in two novel ways. First, it posits that general basic psychological needs at both the individual and group levels serve as critical predictors of solidarity-based actions. Second, it proposes that allies' perceptions of their own basic psychological needs, as well as their perceptions of disadvantaged groups' needs, influence participation in solidarity-based actions in distinct ways. In an exploratory manner, we test and further develop this model amongst allies from a high-status group (i.e., English citizens acting in solidarity for Ukrainian refugees) and allies from a low-status group (i.e., university students acting for university staff on strike).

Self needs vs. others' needs as motives for solidarity

The literature on motivations to engage in solidarity actions distinguishes broadly between self-focused and other-focused concerns (Craig et al., 2020; Louis et al., 2019; Radke et al., 2020). For example,
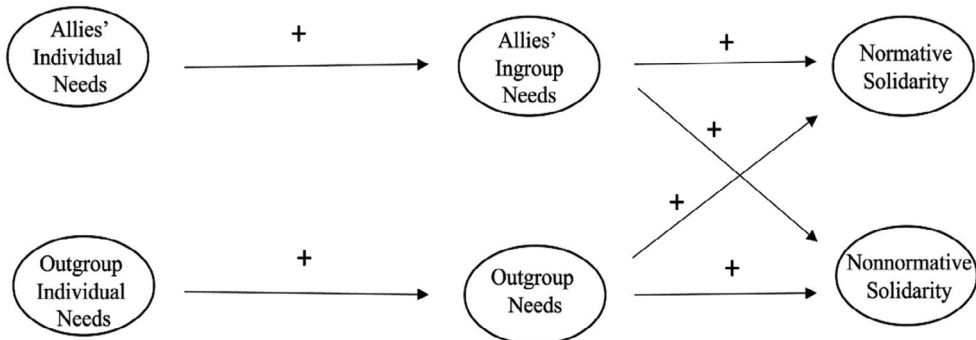

FIGURE 1 Conceptual model for the basic psychological needs: Pathways to allyship.

looking into allies from high-status groups, Radke et al. (2020) identified two other-focused dimensions of motivations rooted in moral values or politicized identities geared towards challenging the system, and two self-focused dimensions rooted in the need to protect and enhance one's individual or ingroup's image and concerns. Similarly, the literature on intraminority solidarity finds that shared experiences of oppression and injustice amongst low-status or disadvantaged groups predict genuine support and engagement in solidarity actions for other disadvantaged groups (Burson & Godfrey, 2018; Vollhardt, 2015). However, disadvantaged groups may also have self-focused reasons and may engage in competition with each other over victim status and public support (Burson & Godfrey, 2020; Noor et al., 2017).

We propose that examining basic psychological needs can be instrumental in understanding where allies' different motives may originate. Drawing from the self-determination theory's propositions about basic psychological needs (Ryan & Deci, 2017), we argue that other-focused motives may be rooted in perceptions of disadvantaged groups' needs, whilst self-focused motives may stem from allies' own needs. Self-determination theory specifies three non-hierarchical and interdependent needs as essential for well-being and goal pursuit (Deci & Ryan, 2000): (a) autonomy needs, which tap into the experiences of volition and feeling uncoerced; (b) competence needs, which refer to the feeling of being effective and skillful and (c) relatedness needs, which indicate a sense of connection, warmth and bonding with others. Though the evidence is mixed, the theory further distinguishes between need satisfaction and need frustration because the frustration of psychological needs, in contrast to low satisfaction, has distinct effects on people's behaviours and well-being and it offers a better explanation for adverse outcomes (Tindall & Curtis, 2019). Some argue that it is vital to separate unsatisfied needs from need frustration because unsatisfied needs are less likely to cause dysfunctional outcomes than frustrated needs. For instance, feeling disconnected from coworkers in the workplace may reduce satisfaction, but blatant discrimination may lead to more adverse outcomes like depression or high stress (Chen et al., 2015; Vansteenkiste & Ryan, 2013). However, other work finds that satisfaction and frustration cannot be empirically separated and suggests that frustration may not provide additional explanatory value beyond low levels of satisfaction (Murphy et al., 2023).

Existing empirical evidence attests that satisfaction with three basic needs is the key predictor of engagement in prosocial behaviours such as donating blood, volunteering, signing petitions and activism for social justice (Gagné, 2003; Tian et al., 2018). Deci and Ryan (2000) theorized that when basic needs are unmet, individuals may become morally blind to the suffering of others, focusing solely on their own concerns whilst individuals with satisfied needs are more likely to possess the psychological resources to care about the plight of others. Previous work on volunteering found that autonomy satisfaction predicted future intentions to volunteer (Wu & Li, 2019), and relatedness satisfaction predicted charitable giving (Jiang et al., 2018). In the context of solidarity, Kachanoff, Gray, et al. (2022) and Kachanoff, Kteily, and Gray (2022) theorize that advantaged groups should be more open to relinquishing their higher status when their need for self-determination is satisfied. This is because advantaged groups perceive their higher status as a tool to secure collective autonomy and be positively valued. Status insecurity and lack of autonomy are theorized to be the barriers to advantaged groups' engagement. For instance, lower autonomy satisfaction of White Americans predicted higher denial of the existence of discrimination faced by Black Americans (Kachanoff, Kteily, & Gray et al., 2022). Similarly, SimanTov-Nachlieli et al. (2016) found that Israeli Jewish students who had their group's self-determination affirmed showed greater willingness to engage in prosocial behaviours towards Palestinians such as providing humanitarian aid to Gaza. This effect was mediated by the higher willingness to 'give up power superiority in order to be just and fair with the Palestinians' (p. 572). This theorizing finds empirical support in direct actions of solidarity as well. Autonomous motivation rooted in satisfaction of one's needs predicted donation intentions and behaviour (Thomas et al., 2017), as well as self-reported engagement in collective action to reduce global poverty (Yip et al., 2023). Thus, the existing work supports the idea that individuals' own needs may motivate participation in solidarity actions.

However, the focus on the fulfilment of one's individual needs is, according to the work on solidarity and allyship (Radke et al., 2020; Selvanathan et al., 2020), more likely to be related to the pursuit of

self-focused rather than other-focused concerns. To more effectively contribute to social change, allies should be more concerned about inequalities between groups and responsive to the perceived needs of disadvantaged groups (Selvanathan et al., 2020), and less focused on fulfilling their own needs (such as the need for moral acceptance).

The perceptions of other's basic needs can play an important role in motivating helping behaviours. Recognizing the misfortunes of others and being conscious of their situation is an essential factor in prompting actions to offer help (Batson et al., 1997; Kim & McGill, 2017). Perceiving others experiencing unmet needs can induce helping behaviour (Batson, 1991). For example, in the context of the proposed abortion ban in Poland, both women and men who participated in the pro-choice protests against the legislation banning abortions were motivated by the desire to restore women's lost autonomy needs (Drążkowski & Trepanowski, 2022). Thus, when allies perceive that others are being denied the opportunity to satisfy their basic need for self-determination, it may drive allies to engage in solidarity actions in support of disadvantaged groups' cause. Whilst perceived unmet needs of others can be a powerful motivator, research also indicates that satisfied needs of disadvantaged groups can also drive ally support. For example, European natives generally favour high-skilled immigrants over low-skilled ones due to perceived competence, industriousness and higher contributions to society (Helbling & Kriesi, 2014). This suggests that allies may be more inclined to support groups they perceive as capable of achieving their own goals. It also speaks to disadvantaged group's preference to be seen as competent and deserving of respect as equal members of society and value being empowered and self-determined to challenge and remedy systemic inequalities (see Selvanathan et al., 2020). Therefore, the relationship between perceived outgroup needs and solidarity is not clear.

Individual and group needs

The second aspect of our proposed model concerns the differentiation between individual and group-level needs. Social identity theory (SIT) assumes that individuals derive part of their identity and self-esteem from membership in different social groups (Tajfel & Turner, 1979). Integrating SIT and needs theory, Kachanoff et al. (2019); Kachanoff, Kteily, et al. (2020) provided initial evidence that individuals' well-being and behaviours (i.e., participating in actions to improve one's ingroup status) are influenced by the satisfaction of both individual and group-level needs. For instance, perceived restrictions on one's group autonomy were associated with reductions in the individual feelings of autonomy and well-being (Kachanoff et al., 2019; Parker et al., 2019). These findings suggest that the satisfaction of general group-level needs is related to individuals' own needs, but it is not known yet how it relates to participation in solidarity-based actions.

We extend the work by Kachanoff et al. (2019); Kachanoff, Kteily, et al. (2020) by focusing on solidarity actions for the benefit of outgroups. Moreover, we build on the work by Thomas et al. (2017) and Yip et al. (2023) to propose that allies' needs, as well as their perceptions of a disadvantaged group's needs, can operate at the individual and the group level in driving engagement in solidarity-based actions. There are some hints in the literature that suggest that the perceived needs of disadvantaged groups at the individual versus group-level impact prosocial intentions in different ways. For example, appeals for help are more effective when they identify a specific victim (e.g., this was the case for the death of Syrian infant Aylan Kurdi), than when they point out to a group of people suffering (Lee & Feeley, 2016). Paradoxically, the increase in the number of people suffering can lead to a decrease in helping behaviour (Small et al., 2007), often driven by attempts to avoid negative affect (Cameron & Payne, 2011). However, other work finds that helping an individual may increase the willingness to help that individual's group (Batson et al., 2002; Oceja et al., 2014). Altogether, the opposing findings point out the importance of differentiating between the perceived needs of an individual member of a disadvantaged group from the needs of the disadvantaged group.

Concerning the relationship between individual and group needs, we expect them to positively influence each other. On the one hand, group needs can influence individual need satisfaction and ensuing

behaviours. Since groups provide social contexts in which group members can pursue the satisfaction of basic needs, individual relatedness, competence and autonomy needs can be shaped by the extent to which individuals perceive their group as connected, competent and autonomous (Kachanoff et al., 2019; Tajfel & Turner, 1979). However, in the context of collective action, the extended work on SIMCA (Agostini & van Zomeren, 2021; van Zomeren et al., 2018) and personal political salience (Duncan, 1999; Duncan & Stewart, 2007), argue that group-level motivations (e.g., politicized group-based identities, group anger and group efficacy) are more proximal predictors of engagement in collective action than individual-level motivations (e.g., individual efficacy, values and personal experiences). For instance, self-determined motives at the individual level strongly predict environmental activist identity and commitment (Sheldon et al., 2016). Similarly, the research on women's rights activism demonstrated that the personal relevance of political events to the self significantly impacts collective factors such as perceived common fate and group identification, and in turn, motivating engagement in activism (Duncan, 1999; Duncan & Stewart, 2007). Supporting this approach, the longitudinal study by Yip et al. (2023) found that group identification mediated the effect of individual-level motives for self-determination on solidarity behaviours (the reverse mediation effect was not significant). Therefore, we expect that individual-level needs serve as building blocks that precede, and provide foundational resources for, group-level needs and outcomes. To this end, we propose the individual-level needs to be distant predictors of solidarity mediated by group-level needs as proximal predictors of solidarity, though we acknowledge that the reverse is also possible (see Kachanoff, 2023).

Building the conceptual model

Finally, we delineate how perceptions of self and others' needs may be linked to different types of solidarity-based actions. Importantly, in their work on allyship motivations amongst high-status groups, Radke et al. (2020) proposed that other-focused motivations should lead to engagement in not only normative but also non-normative actions. The choice of actions should depend on which ones most effectively contribute to improving the status of the disadvantaged group. Therefore, to the extent that they are primarily motivated by the perceived needs of disadvantaged groups, allies should prioritize the potential effectiveness of actions over concerns about the costs to themselves or their groups. Moreover, previous research argued that when disadvantaged groups' needs are perceived to be satisfied, allies should be more willing to engage in solidarity actions due to attributions of deservingness (see Helbling & Kriesi, 2014; Kotzur et al., 2019). We thus expect that perceived satisfaction of disadvantaged group's needs should translate into higher engagement in both normative and non-normative solidarity-based actions.

In contrast, when allies are focused on their own needs, supporting disadvantaged groups is likely to depend on the perceived costs and rewards associated with engaging in the different solidarity actions (Radke et al., 2020; Stürmer & Siem, 2017). Non-normative actions tend to be more personally costly (in terms of time and effort) than normative actions and impose high social costs because they are less likely to be approved of, and supported by, the authorities or general public (Feinberg et al., 2020). Members of high-status groups are especially dismissive of non-normative actions due to concerns for their ingroup's status and image (Teixeira et al., 2020). Indeed, Kachanoff, Gray, et al. (2022) and Kachanoff, Kteily, and Gray (2022) argued that high-status advantaged groups should become more willing to tackle inequality and give up on some of their privileges when their high status, perceived as a tool for securing collective autonomy, is satisfied. This suggests that satisfaction of allies' needs may at least lead to engagement in normative actions. Therefore, we expect that allies' need satisfaction (at the individual and group level) should be associated with solidarity-based actions but more strongly so with engagement in normative actions than non-normative actions, because the latter are more costly for the allies and their ingroup.

One of the goals of this paper is theory development and thus, we adopt a bottom-up approach to building and testing the proposed model. That is, some of the associations between concepts

will be investigated in an exploratory manner due to the limited research on the link between need frustration and solidarity, as well as the mixed evidence on whether satisfaction and frustration should be treated as distinct constructs. For these reasons, we confined our main hypotheses to the satisfaction-solidarity pathways (see Figure 1). We test and adapt our model in two cross-sectional studies, both set in highly politicized contexts, namely English citizens acting in solidarity with Ukrainian refugees and university students supporting university staff on strike. The inclusion of the two contexts allow us to examine the generalizability of our proposed needs-based solidarity model to allies from high and low-status groups. This is an important step forward for research on solidarity because the literature on intraminority solidarity (Burson & Godfrey, 2020; Craig et al., 2020) and advantaged group solidarity (Kutlaca et al., 2020; Radke et al., 2020) have rarely been combined in previous work.

STUDY 1

Background

Study 1 examines the proposed model in the context of solidarity by members of a high-status group, specifically English citizens' responses to the war in Ukraine and their support and solidarity with Ukrainian refugees. During the time of data collection, Russia had invaded Ukraine for 6 months and the UK government had pledged, and started to provide, military and monetary support for Ukraine to help aid the humanitarian crisis (UK aid to Ukraine, 2024). In the meantime, discourses of solidarity with Ukraine from the English public had been widespread (Townsend, 2022), and many people were expressing concern and empathy for the Ukrainian people and their situation.

Participants and procedure

The study was approved by the ethics board of the Department of Psychology at Durham University and informed consent was obtained from participants. We used convenience sampling and reached out to English citizens primarily via social media platforms such as Reddit and Facebook groups. We also shared the survey with English citizens amongst our social networks and distributed adverts in Durham and Newcastle city centers. Data collection took place between August 2022 and November 2022. Out of the initial pool of 744 participants, our final sample consisted of 642 individuals who met the criteria of possessing UK nationality, lacking a refugee background and having completed at least 80% of the study.

Demographic characteristics of the participants can be found in Table 1. Unless stated otherwise, we asked participants to rate their agreement with each item from 1 (strongly disagree) to 7 (strongly agree). The survey included additional measures (Appendix A: S1), but here we focus on measures that are crucial to addressing our research question. All measures, along with the data, code and supplementary analyses, can be found here https://osf.io/a2p6x/?view_only=63d305caa9a34e0b8842 75fc1ddfbd58.

Materials

Basic psychological needs

To assess allies' individual needs, we employed the basic psychological need satisfaction and frustration scale (BPNSFS), which measures the general needs of autonomy, competence and relatedness

TABLE 1 Demographic characteristics of the participants.

	Study 1	Study 2
Age (M/SD)	32.63/8.55	23.85/7.5
Political orientation (M/SD)[a]	4.56/1.22	3.1/1.38
Gender (N/%)		
Women including transgender women	296/46.1	323/54.7
Men including transgender men	343/53.4	242/41
Non-binary	3/0.5	12/2
Ethnicity (N/%)		
White	475/74	449/76.1
Black	78/12.2	21/3.5
Asian	71/11	74/12.5
Others	18/2.8	28/4.7
Nationality (N/%)		
British	642/100	451/76.4
Others	0/0	139/23.6
Education level (N/%)		
High school/A-level	205/31.9	0/0
Undergraduate	292/45.5	468/79.3[b]
Postgraduate	129/20	121/20.5[b]

[a]On a scale from 1 (far left) to 7 (far right).
[b]Currently studying the named degrees.

(Chen et al., 2015). This scale captures the extent to which individual needs are satisfied (e.g., 'I feel a sense of choice and freedom in the things I undertake') and frustrated (e.g., 'I feel forced to do many things I wouldn't choose to do'). To capture allies' group needs, participants were prompted to think about English citizens' needs, using the Social Identity Group Need Satisfaction and Frustration Scale, adapted by Parker et al. (2019) from the BPNSFS (e.g., 'My group is able to determine our identity for ourselves').

To capture the perceptions of the disadvantaged group's individual and group needs, we used the same two scales and asked participants to imagine meeting a refugee in their city (individual-level needs) and to think about the Ukrainian refugees living in England (group-level needs). The items were adjusted by replacing 'I' with 'Kristina', a popular Ukrainian name to capture the perceptions of a disadvantaged group member's individual needs, and by replacing 'We' with 'Ukrainian refugees', to capture the perceptions of disadvantaged group's needs. The full scales can be found in Appendix B: S1.

Solidarity-based actions intentions

Based on the scales developed by Kende et al.' (2017) work on volunteerism and Tausch et al.' (2011) work on collective action, we asked participants to indicate how likely/unlikely they would be to engage in 26 different actions in support of Ukrainian refugees (response options ranged from extremely unlikely to extremely likely). Items included a variety of normative (e.g., creating social media posts and donating) and non-normative behaviours (e.g., blocking highways and spraying graffiti) including actions that may be seen as disruptive and possibly violent (e.g., forming human chains to prevent deportation and attacking politicians who are against Ukrainian refugees).

Results

Data preparation

Overall, the missing answers ranged from 0% to 1.7% for each item of interest. Little's MCAR test suggested that the pattern for these missing data was completely random, $X^2(22,452) = 21,176.28$, $p = 1$. Thus, we concluded that pairwise deletion – making use of the available parts of the missing data – would lead to unbiased estimates (Newman & Cottrell, 2015). The Mahalanobis distance test identified 60 multivariate outliers beyond the critical X^2 value of 52.61 at $p = .001$. Whilst the removal of outliers did not affect model fit, it changed the magnitude and significance of certain paths and resulted in an increase in the variance explained for normative and non-normative solidarity intentions, by 5% and 8%, respectively. Thus, we removed the outliers from the analyses (see Appendix C: S1 for details of removal and further assumptions tests).

Solidarity-based actions intentions

We conducted an exploratory factor analysis on 26 items with Promax rotation, allowing factors to correlate with each other. It initially yielded a three-factor solution (explaining 52.4% of total variance), whereby non-normative actions, like blocking highways and disturbing events, loaded highly on the first factor and normative actions, like donations and volunteering, loaded on the second factor. The third factor included four items, but only one had a factor loading higher than 0.60 ('Challenge and confront people who make discriminatory and inappropriate remarks against Ukrainian refugees'). This item exhibited weak correlations with items representing both normative (ranging from .17 to .32) and non-normative actions (ranging from .11 to .27). Given that this item did not correlate well with other items, it was removed along with 8 items that did not load highly on any factors. We then re-ran the factor analysis, which yielded a 2-factor solution with non-normative and normative actions with 17 items in total explaining 54.6% of the variance. Normative and non-normative action intentions were weakly positively correlated, $r = .25$, $p < .001$. Appendix D: S1 contains further details on the factor analyses.

Factor structure of need domains

Some work on basic needs conceives satisfaction and frustration as separate need domains (Holmquist et al., 2023; Vansteenkiste & Ryan, 2013), whilst other work does not (Murphy et al., 2023). To test these contrasting accounts, we reverse-coded frustration items and loaded them together with satisfaction items. Following the conventional criteria (Hu & Bentler, 1999; Steiger, 2007), the model combining satisfaction and frustration items yielded poor fit, $X^2(4458) = 13,162$, $p < .001$, CFI = 0.68, SRMR = 0.08, RMSEA = 0.04, CI = [0.039, 0.041], AIC = 198,105; whilst treating them as separate factors yielded acceptable fit, $X^2(4436) = 7988$, $p < .001$, CFI = 0.94, SRMR = 0.05, RMSEA = 0.018, CI = [0.017, 0.019], AIC = 192,975. Thus, although we did not initially anticipate this, we decided to keep satisfaction and frustration as separate factors. The correlations between need satisfaction and frustration were relatively low for allies, at $r = .09$ and $r = .15$, whilst they were moderate for disadvantaged group needs, at $r = .38$ and $r = .50$, also supporting the plausibility of separating them. As suggested by Bandalos and Finney (2001) and successfully applied to the basic needs scale by Heissel et al. (2018), we then proceeded to parcelling the need domains (i.e., averaging needs into single indicators of autonomy, competence and relatedness; see Appendix E: S1 for rationale). The model was more parsimonious and showed acceptable fit, $X^2(224) = 781$, $p < .001$, CFI = 0.95, SRMR = 0.05, RMSEA = 0.05, CI = [0.047, 0.055], AIC = 33,357.

Whilst our research question and main model centered only on the relationship between general basic needs (of satisfaction and frustration) and solidarity actions, we nevertheless explored an alternative

TABLE 2 Pearson correlations, means and standard deviations for observed variables (Study 1).

	1	2	3	4	5	6	7	8	9	10
1. Normative action intentions	–									
2. Non-normative action intentions	.25**	–								
3. Allies' individual need satisfaction	.39**	−.06	–							
4. Allies' individual need frustration	.26**	.53**	.09*	–						
5. Allies' group need satisfaction	.45**	.09*	.64**	.23**	–					
6. Allies' group need frustration	.21**	.51**	.17**	.64**	.15**	–				
7. Perceptions of a refugee's need satisfaction	.46**	.33**	.53**	.42**	.53**	.44**	–			
8. Perceptions of a refugee's need frustration	.36**	.32**	.39**	.58**	.46**	.51**	.50**	–		
9. Perceptions of refugees' need satisfaction	.48**	.25**	.49**	.41**	.55**	.40**	.61**	.47**	–	
10. Perceptions of refugees' need frustration	.27**	.47**	.27**	.57**	.34**	.55**	.44**	.64**	.38**	–
M	4.44	3.68	4.74	4.20	4.62	4.26	4.42	4.38	4.42	4.34
SD	1.02	1.23	0.86	0.88	0.78	0.87	0.76	0.75	0.73	0.79
Cronbach's *a*	.83	.92	.88	.84	.85	.84	.76	.82	.81	.82

**Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed).

model treating specific needs domains (e.g., autonomy frustration) as latent, instead of observed, variables. However, this alternative model exhibited major statistical issues and poor fit (see Appendix F: S1). We thus did not explore the alternative model any further.

Correlations

As exhibited in Table 2, individual and group-level needs were positively correlated (ranging from $r = .61$ to $r = .64$). The correlations of action intentions with allies' own needs and their perceptions of disadvantaged group needs were positive, providing initial support for the model. Notably, and in contrast to the previous literature that suggests a null or negative relationship between allies' own needs and their support for non-normative actions (see Teixeira et al., 2020), allies' frustrated (individual and group) needs were positively related to non-normative action intentions ($r = .53$ and $r = .51$, respectively).

Model test

We used structural equation modelling (lavaan package in R 4.3.1) to test our hypothesized model exhibited in Figure 2. A power analysis for SEM determined that a sample size of 582 participants would yield adequate statistical power (90%) to detect conventionally small-to-medium effects (0.2) at a significance level of .05 (Soper, 2023; Westland, 2010). Given that our final sample consisted of 642 participants, we were confident that our sample was large enough to detect small-to-medium effects.

We tested a model where individual needs predict group needs, which, in turn, predict solidarity outcomes. Following the conventional criteria (Hu & Bentler, 1999; Steiger, 2007), the model fit was acceptable, $X^2(752) = 2081$, $p < .001$, CFI = 0.93, SRMR = 0.07, RMSEA = 0.047, CI = [0.044, 0.051], AIC = 69,165.[1]

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[1]The alternative model where group needs precede individual needs also fit the data with nearly identical goodness-of-fit indices (see Appendix G: S1).
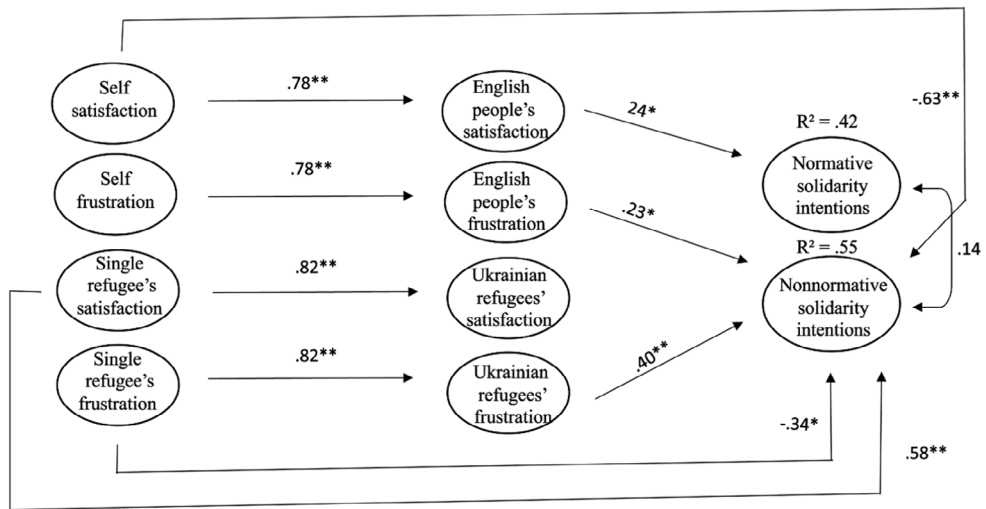
FIGURE 2 Needs-based model of normative and non-normative solidarity actions intentions with Ukrainian refugees (Study 1). Significant standardized path coefficients are depicted.

First, as expected, satisfaction of allies' group needs was significantly associated with normative ($\beta = .24$, $p = .014$), but not with non-normative solidarity action intentions ($\beta = .16$, $p = .083$). In contrast, frustration of allies' group needs was associated with non-normative ($\beta = .23$, $p = .017$), but not with normative action intentions ($\beta = -.08$, $p = .433$). Second, the perceived needs of refugees were also related to action intentions, albeit inconsistently. Specifically, the extent to which refugees' needs were perceived as satisfied did not significantly predict normative ($\beta = .26$, $p = .054$), nor non-normative action intentions ($\beta = -.10$, $p = .35$). However, perceived frustration of refugees' needs positively related to non-normative action intentions ($\beta = .40$ $p < .001$), but not to normative action intentions ($\beta = -.07$, $p = .53$).

When regressing our outcomes on individual needs to control for their influence, three significant direct paths emerged on non-normative actions: allies' individual need satisfaction ($\beta = -.63$, $p < .001$), and perceptions of a refugee's individual need frustration ($\beta = -.34$, $p = .015$) were associated with less engagement in non-normative solidarity, whilst perceptions that a refugee's needs were satisfied motivated more engagement in non-normative actions ($\beta = .58$, $p = .001$). Indirect effects of individual-level needs via group-level counterparts in exhibited in Table 3.

Brief discussion

Overall, the findings of Study 1 provided initial support for our model by showing that both allies' needs, and their perceptions of the disadvantaged group's needs, play a role in motivating engagement in solidarity behaviours. Although we did not expect this initially, the analyses further suggested that frustration and satisfaction of both allies' needs and their perceptions of disadvantaged group's needs have distinct motivating effects. In support of our model, the satisfaction of allies' needs predicted engagement in normative, but not in non-normative actions. Surprisingly, we found that the frustration of allies' needs was positively related to engagement in non-normative solidarity actions, which seems to contradict the assumption that members of high-status groups who are more satisfied and less threatened (or frustrated) are more likely to engage in solidarity-based actions (see Kachanoff, Gray, et al., 2022; Thomas et al., 2017). Our findings suggested that both satisfaction and frustration have facilitative effects on allyship, albeit via different types of action. We test this effect in the next study, and we return to potential explanations in the General Discussion.

TABLE 3 Standardized indirect effects of individual-level needs on solidarity (Study 1).

	Normative		Non-normative	
	β/SE	BootCI	β/SE	BootCI
1. Allies' individual need satisfaction via group need satisfaction	.19*/0.10	[0.04, 0.42]	.12/0.11	[−0.02, 0.46]
2. Allies' individual need frustration via group need frustration	−.06/0.10	[−0.27, 0.16]	.18*/0.12	[0.01, 0.50]
3. Perceptions of a refugee's need satisfaction via group need satisfaction	.21/0.16	[−0.06, 0.56]	−.08/0.15	[−0.44, 0.17]
4. Perceptions of a refugee's need frustration via group need frustration	−.06/0.15	[−0.45, 0.17]	.33**/0.14	[0.40, 1.01]

*$p < .05$. **$p < .001$.

As expected, we found that both individual and group-level needs predicted allyship intentions. Furthermore, group-level needs mediated the effects of individual-level needs on engagement. However, the individual needs of allies and their perceptions of the needs of a disadvantaged group member also directly facilitated participation in non-normative actions, over and above the group-level needs. Not surprisingly, allies' individual need satisfaction demotivated engagement in non-normative actions, which fits with earlier findings (Teixeira et al., 2020), whilst perceptions of a disadvantaged member's needs facilitated the engagement. We note a surprising finding, namely a negative effect of perceptions of a refugee's need frustration on engagement in non-normative actions. We assume that this may reflect multicollinearity or a suppression effect revealed by the mediation of group-level needs (Cohen et al., 2002; see Appendix M: S1), because bivariate correlations initially suggested a positive association.

Other limitations include potential biases due to high perceived similarity with and low threat from Ukrainian refugees and focusing on action intentions, as donations, for instance, often fall notably short of intentions to donate (Sinclair et al., 2024). These factors, along with the cross-sectional design, may have inflated correlations (Maxwell & Cole, 2007).

To validate our model and to address some of the ambiguous and surprising findings, we decided to replicate the study in a different context of solidarity involving students and university staff in the United Kingdom. Moreover, in Study 1, we only included action intentions, whilst we added a behavioural task in Study 2. We updated our proposed model by differentiating between need domains of frustration and satisfaction, and by retesting the facilitative effects of allies' needs on normative and non-normative solidarity actions.

STUDY 2

Background

In Study 2, we examined a unique context of solidarity between two disadvantaged groups (Burson & Godfrey, 2020), striking university members and students. A large wave of industrial action was initiated by the University and College Union (UCU), which represented over 130,000 staff at higher education across 145 UK universities in 2023. This action included strikes, action short of strikes and marking and assessment boycotts (Lewis, 2024; UCU press office, 2023).

In this context, we considered striking members of the university staff as a disadvantaged group characterized by their grievances including pension cuts, excessive workload, job insecurity and gender, ethnic and disability pay gaps (Lewis, 2024). The students can also be seen as a disadvantaged group in this context, because the strikes have in part disrupted the quality of their education and their future career prospects (e.g., due to delayed graduations, some students were unable to secure jobs or spots in postgraduate programs; Lewis, 2024). In addition to strikes, the students had been affected by the economic decline, increased

tuition fees (for international students) and higher cost of living (Lewis & Wilson, 2023). The uniqueness of this context is that the two disadvantaged groups (staff and students) were dependent on each other to reach their goals. This is reflected in a slogan used in these actions 'staff working conditions are student learning conditions'. Although some students were not happy with the strikes, many sided with their professors: For instance, in support of the strikes, students disrupted the graduation ceremony with chants 'pay your workers' (Campbell, 2023). We, thus, test our conceptual model in the context of university strikes to determine whether the underlying mechanisms that we propose (and for which we found initial support in Study 1) hold in this dynamic context of intraminority solidarity.

Participants and procedure

This study received ethical approval by the Department of Psychology at Durham University and informed consent was obtained. The participants were students currently enrolled in various universities across the United Kingdom. Data collection took place between February and May 2023, a period coinciding with the university strikes and marking boycotts. Employing a convenience sampling approach, we reached out to students through targeted email invitations at Durham University ($N = 370$), as well as via prominent social media platforms such as Reddit ($N = 10$) and complemented by recruitment on Prolific ($N = 210$). The final sample included 590 students. Just as in the first study, this sample size provided adequate power to detect small-to-medium effect sizes for the same model. Details of data preparation are available in Appendix H: S1.

Demographic characteristics of the participants can be found in Table 1. Unless stated otherwise, all scales asked participants to rate their agreement with each item from 1 (strongly disagree) to 7 (strongly agree). The survey included additional measures (Appendix A: S1), but here we focus on measures that are crucial to addressing our research question.

Materials

We used the same scales to assess the basic needs of students and their perceptions of staff needs (both at the individual and group levels). We reduced the number of items by half for each need domain (from 24 to 12) to maximize participants' retention (see Appendix B: S1) by selecting those with the highest factor loadings in Study 1. The solidarity-based actions intentions scale was adjusted to the context of strikes and shortened to 14 items (e.g., joining the picket line, participating teach-outs and wearing a pin to show support for the strike).

We added a behavioural task and asked the students whether they would write a letter to the university management to show their support for staff. Those who responded positively were given an opportunity to write the letter.

Results

Data preparation

There were very few missing values within the range of 0.5% and 3.7%. Little's MCAR test suggested that the pattern for the missing data was completely random, $X^2(726) = 717.45$, $p = .582$, suggesting that missing values are probably not related to observed values. Similar to the approach employed in the first study, we opted for pairwise deletion to approximate unbiased estimates (Newman & Cottrell, 2015). An outlier analysis using the Mahalanobis distance test identified 38 outliers beyond the critical X^2 value of 100.65 at $p = .001$. Their exclusion did not result in any change in our conclusions. Consequently, we opted to retain the outliers.

TABLE 4 Pearson correlations, means and standard deviations for observed variables.

	1	2	3	4	5	6	7	8	9	10
1. Normative action intentions	–									
2. Nonnormative action intentions	.53**	–								
3. Allies' individual need satisfaction	.03	.15**	–							
4. Allies' individual need frustration	.12**	.18**	.31**	–						
5. Allies' group need satisfaction	.11*	−.01	.01	−.17**	–					
6. Allies' group need frustration	.15**	.20**	.15**	.27**	−.46**	–				
7. Perceptions of a striker's need satisfaction	.18**	.01	.04	−.06	.19**	−.09*	–			
8. Perceptions of a striker's need frustration	.01	.15**	.17**	.33**	−.21**	.26**	−.36**	–		
9. Perceptions of strikers' need satisfaction	.51**	.25**	−.02	.06	.19**	.05	.24**	−.09*	–	
10. Perceptions of strikers' need frustration	.40**	.28**	.05	.26**	−.12**	.33**	.04	.14**	.20	–
11. Letter writing (36%)	.56**	.27**	.02	.08	.001	.11*	.12**	.03	.28**	.35**
M	3.83	1.80	4.01	3.58	4.58	4.19	5.17	3.26	4.43	4.82
SD	1.69	1.03	.70	1.29	1.07	1.29	.99	1.05	1.28	1.21
Cronbach's a	.95	.75	.80	.78	.76	.82	.76	.79	.69	.70

**Correlation is significant at the .01 level (2-tailed). *Correlation is significant at the .05 level (2-tailed). Letter signing is a categorical variable, with the percentage indicating the proportion of students who have signed the letter (0: no, 1: yes).

Solidarity-based actions intentions

An exploratory factor analysis with Promax rotation was conducted with 14 items, explaining 67.34% of the variance, separating normative from non-normative action intentions. We modelled solidarity-based action intentions as a two-factor solution. The two factors were positively correlated $r = .53$ (Appendix I: S1).

Factor structure of need domains

The model with the same factor structure as Study 1 yielded poor fit, $X^2(1052) = 4041$, $p < .001$, CFI = 0.73, SRMR = 0.08, RMSEA = 0.063, CI = [0.061, 0.065], AIC = 92,719. Dropping items with lower loadings than 0.60, the model showed considerable improvement, $X^2(296) = 1223$, $p < .001$, CFI = 0.85, SRMR = 0.05, RMSEA = 0.066, CI = [0.062, 0.070], AIC = 51,383 (see Appendix I: S1). Whilst most fit indices meet acceptability criteria, the CFI did not meet the recommended level of fit (Kline, 2005; Steiger, 2007). Parcelling out the need domains was not deemed necessary, because we began with only half of the items from the first study and subsequently removed poorly loaded items, resulting in fewer items than the first study (Table 4).

In contrast to Study 1, associations between individual and group-level needs were weaker and often not statistically significant, ranging from $r = .01$ to $r = .27$. Other patterns largely mirrored those in Study 1, including positive associations between students' frustrated needs and both non-normative ($r = .20$, $p < .001$) and normative solidarity intentions ($r = .15$, $p < .001$).

Model test

As exhibited in Figure 3, we proceeded with SEM analysis to test the hypothesized model, which indicated acceptable-to-mediocre fit across different fit indices, $X^2(752) = 2562$, $p < .001$, CFI = 0.85, SRMR = 0.08, RMSEA = 0.06, CI = [0.058, 0.063], AIC = 79,415.[2] Replicating the findings from Study

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[2]The alternative model where group needs precede individual needs, unlike Study 1, produced slightly worse fit indices for solidarity intentions. As for the letter writing, it also yielded worse fit indices and the explained variance notably dropped from 61% to 25% (see Appendix J: S1).
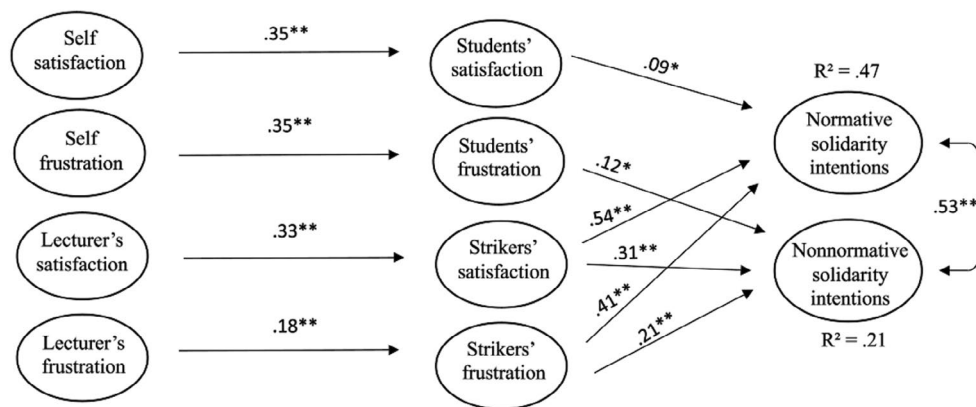
FIGURE 3 Needs-based model of normative and non-normative solidarity actions intentions with university staff on strike (Study 2). Significant standardized path coefficients are depicted.

TABLE 5 Standardized indirect effects of individual-level needs on solidarity-based actions in Study 2.

	Normative		Non-normative	
	β/SE	BootCI	β/SE	BootCI
1. Allies' individual need satisfaction via group need satisfaction	.03/0.03	[0, 0.15]	.02/0.02	[−0.02, 0.06]
2. Allies' individual need frustration via group need frustration	.02/0.02	[−0.02, 0.09]	.04*/0.01	[0, 0.07]
3. Perceptions of a striker's need satisfaction via group need satisfaction	.18**/0.06	[0.18, 0.45]	.10**/0.02	[0.04, 0.13]
4. Perceptions of a striker's need frustration via group need frustration	.07**/0.04	[0.04, 0.20]	.04*/0.01	[0, 0.05]

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

1, allies' (students) need satisfaction was related to normative solidarity action intentions but was not related to non-normative solidarity action intentions, $\beta = .09$, $p = .039$ and $\beta = .05$, $p = .372$, respectively. Also in line with Study 1, allies' need frustration was related to non-normative action intentions, $\beta = .12$, $p = .036$, but not related to normative action intentions, $\beta = .05$, $p = .279$. As for the perceptions of strikers' needs, we found stronger relations between perceptions of the disadvantaged group's needs and action intentions than in Study 1. Both normative and non-normative action intentions were associated with the perceived need satisfaction and frustration of the strikers.

Whilst none of the direct paths from individual-level needs was significant, there were significant indirect effects of individual-level needs via group-level needs on solidarity exhibited in Table 5. Specifically, like in Study 1, allies' individual need frustration as well as their perception of the disadvantaged group individual's need frustration indirectly influenced non-normative solidarity intentions through respective group-level needs.

We ran a second SEM with our behavioural task. The model, exhibited in Figure 4, showed a similar fit as the model with intentional measures, $X^2(333) = 1600$, $p < .001$, CFI = 0.84, SRMR = 0.09, RMSEA = 0.073, CI = [0.069, 0.077]. Two key predictors of letter writing were perceived satisfaction and frustration of the disadvantaged group's needs ($\beta = .44$ and $\beta = .64$, $p < .001$). Although the effects were weaker, allies' need for frustration remained a significant predictor, consistent with its pattern observed for non-normative solidarity across two studies ($\beta = .16$, $p = .041$).

In contrast to Study 1, none of the direct paths from individual needs were significant predictors of either solidarity intentions or letter writing, which might have contributed to the lower model performances than Study 1 (see Appendix L: S1). Likewise, the distribution of indirect effects produced by bootstrapping analysis suggested that significant indirect effects of individual-level needs were estimated to be either non-significant or much smaller than initially assumed, exhibited in Table 6. On that basis, we explored a model without individual-level needs by regressing our outcomes only on group-level needs and this model had the best fit (see Appendix K: S1). Thus, it seems that individual-level needs were of less importance in this context than group-level needs.

Brief discussion

Overall, the findings on action intentions replicated the patterns observed in Study 1 and provided further validation of our proposed model by including a behavioural task. As expected, both allies' needs and their perceptions of disadvantaged groups' needs facilitated engagement in solidarity actions. Importantly, we replicated the finding that allies' frustrated group needs have a motivating rather than a debilitating effect on both solidarity intentions and behaviours. In contrast to Study 1, the perceptions of disadvantaged group needs were the strongest predictors of action intentions. This may in part be due to higher contact and closer relationship between university staff and students (Zacharek, 2024), than between English citizens and Ukrainian refugees.
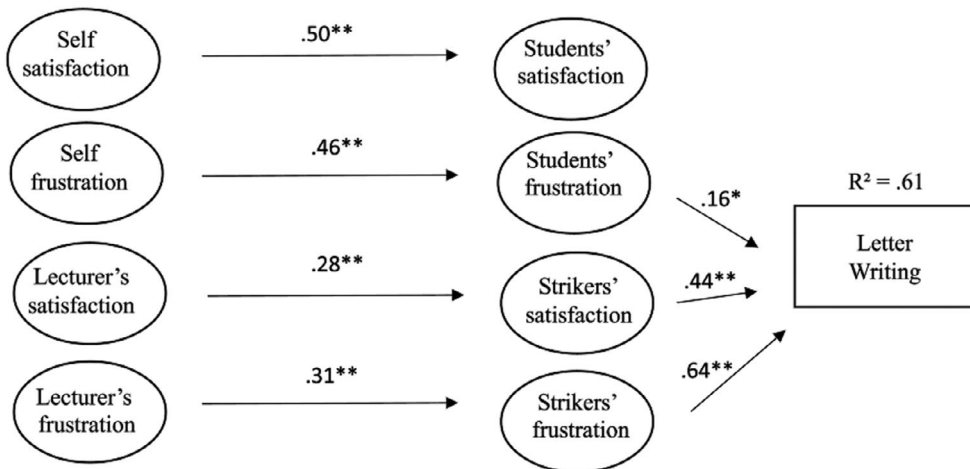

FIGURE 4 The model of solidarity with the behavioural task of letter writing (Study 2). Significant standardized path coefficients depicted.

TABLE 6 Standardized indirect effects of individual-level needs on letter writing in Study 2.

	Letter writing	
	β/SE	BootCI
1. Allies' individual need satisfaction via group need satisfaction	.02/0.05	[−0.02, 0.02]
2. Allies' individual need frustration via group need frustration	.07*/0.04	[−0.01, 0.02]
3. Perceptions of a striker's need satisfaction via group need satisfaction	.12**/0.04	[0.02, 0.07]
4. Perceptions of a striker's need frustration via group need frustration	.20**/0.05	[0.01, 0.06]

*$p < .05$. **$p < .001$.

Whilst letter writing correlated more strongly with normative than non-normative solidarity, its significant predictors were the same as those for non-normative solidarity. This suggests that students may have perceived letter writing as a riskier action than a typical normative one such as signing a petition. The severe repercussions faced by strikers such as job loss and pay cuts may have made letter writing seem effortful and costly, aligning it with non-normative actions.

Lastly, as expected, group and individual-level needs motivated engagement, although this time group-level needs were more strongly related to actions than individual-level needs. We did not observe any direct effects of individual-level needs on actions, only indirect effects through group-level needs. Unlike Study 1, group-level needs played a more important role in explaining solidarity than individual-level needs.

GENERAL DISCUSSION

We proposed that allies' needs and their perceptions of disadvantaged groups' needs motivate engagement in solidarity-based actions. The findings in two very different contexts largely supported and further refined our theoretical model, exhibited in Figure 5. In both studies, we found that allies' own needs and their perceptions of disadvantaged groups' needs predicted solidarity intentions independently. However, we updated our initial model by distinguishing between need satisfaction and need frustration, because they had distinct facilitative effects on solidarity-based actions. Importantly, when it comes to allies' own needs, satisfaction and frustration facilitated different types of action: Need satisfaction motivated normative solidarity, whilst need frustration motivated non-normative solidarity. Concerning the perceptions of disadvantaged groups' needs, the patterns were less consistent across the two studies: In Study 1, perceived need frustration of the disadvantaged group predicted non-normative solidarity, whilst in Study 2, both satisfaction and frustration predicted both types of actions. Overall, two important differences across studies emerged. First, individual-level needs played a substantial role in motivating solidarity actions by high-status allies (English citizens), but not by low-status allies (students). Second, the perceived needs of the disadvantaged group seemed to be more consequential for solidarity amongst low-status allies compared to high-status allies, suggesting that the perceived needs of disadvantaged groups may carry more weight for those with lower social standing.
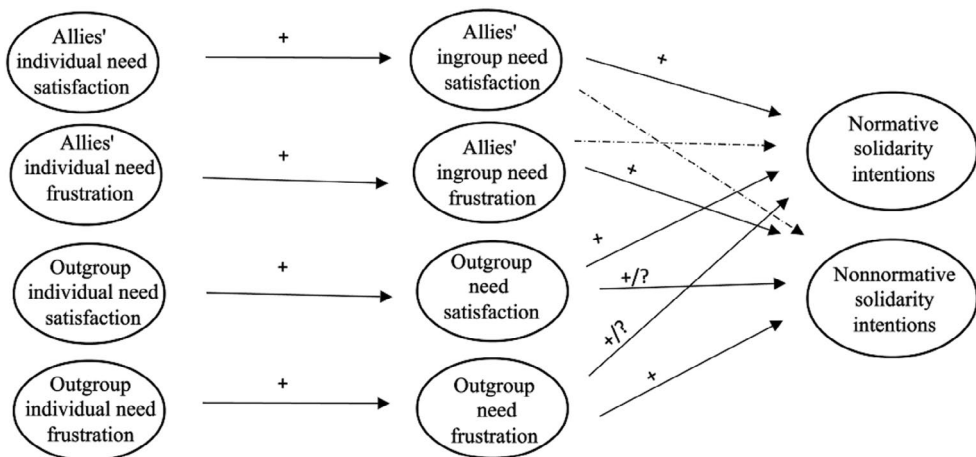

FIGURE 5 Conceptual model improved based on two studies. Question marks indicate uncertainty due to inconsistent findings across two studies.

Theoretical implications

This work advances the literature on motivations for allyship in multiple ways. Whilst prior research acknowledged self-focused concerns as a motivator for solidarity actions, it often assumed these concerns would only drive actions that do not challenge the status quo (Kutlaca & Radke, 2023; Radke et al., 2020). Our study is the first to demonstrate how self-focused concerns in the form of satisfaction and frustration of allies' basic needs differentially motivate solidarity actions. In both studies, we found that allies' need satisfaction was associated with solidarity intentions, which fits with theorizing by Kachanoff, Gray, et al. (2022) and Kachanoff, Kteily, and Gray (2022) and has been supported by previous research (Thomas et al., 2017; Yip et al., 2023). However, our results found that this is limited to normative actions only, suggesting that allies with higher need satisfaction are less likely to make sacrifices and take personal risks to help those in need by engaging in, the more personally costly, non-normative actions.

In contrast to satisfaction, own need frustration seems to facilitate allies' engagement in actions that can challenge the status quo. One possible explanation for this effect can be found in the work on reactance and the notion of oppositional defiance, where individuals attempt to gain a sense of agency and control to restore their frustrated needs by challenging authority figures and societal norms (Brehm, 1966; Vansteenkiste et al., 2014). Alternatively, allies may recognize the systemic nature of many injustices (Burson & Godfrey, 2020). For instance, they may perceive a common enemy that threatens the needs of many groups, as evident in both contexts we studied. Indeed, the UK government has placed sanctions against Russia and the UK public has seen rising energy bills and inflation (Mbah & Wasum, 2022). Similarly, the crisis in higher education has had downstream consequences for students (Lewis, 2024). However, we do not expect that allies solely focusing on their own frustrated needs will facilitate solidarity (and the effects we observed were rather small). An important direction for future research is to explore whether the effect of allies' frustrated needs on solidarity holds true when the opportunities exist to engage in non-normative actions for their own group.

Furthermore, whilst our work highlights the impact of allies' needs, it also found that the perceived needs of disadvantaged groups facilitated engagement in solidarity. This was especially the case amongst low-status allies. Although self-focused motives still play a role, low-status allies were more mobilized by other-focused basic needs, whilst both types of needs mattered to high-status allies. Moreover, we found that the action intentions of high-status allies were predicted by both individual and group-level needs. In contrast, individual-level needs did not contribute much to the model explaining solidarity amongst allies from the low-status group in Study 2. The differences between allies from low and high-status groups fit with previous work arguing that members of low-status groups (in contrast to high-status) are likely to help each other out of genuine and other-focused concerns and less so out of self-focused concerns (Burson & Godfrey, 2020; Craig et al., 2020; Vollhardt, 2015). Their work also stresses that effective solidarity requires a collectively rather than individually motivated opposition to the status quo. As high-status allies are heavily mobilized by individual-level motives, this may highlight the more suitable role of low-status allies in achieving social change.

Future research could explore whether shared experiences and a sense of common fate create stronger bonds between low-status allies and disadvantaged groups compared to high-status allies (Burson & Godfrey, 2020). We expect this to be the case, particularly in high-risk settings, such as under authoritarian regimes, where allies' needs and personal needs might be of even less importance due to a heightened sense of common fate with disadvantaged groups. However, fear of personal repercussions can be a substantial barrier to collective action (Miller et al., 2009), suggesting that allies' needs may still play a crucial role in high-risk environments. In addition, the political actions and public opinion in the United Kingdom sided unequivocally with the plight of Ukrainian citizens, possibly resulting in a strong ingroup norm towards high solidarity that is less sensitive to outgroup's perceived needs or emotions as compared to the university strikes, which may in part explain the differences between two studies. These considerations point to a possible moderating effect of context, and allies' own status, on the relationship between basic needs and solidarity, an important question for future research.

Our results also point to differences in how allies respond to the perceived needs of others, depending on the intergroup context. Whereas the disadvantaged group's need satisfaction and frustration were both significantly associated with both normative and non-normative solidarity in Study 2, in Study 1 we found only the significant effect of perceived frustration of disadvantaged group needs on non-normative actions, with a marginally significant effect of outgroup's perceived satisfaction on normative solidarity. This aligns with mixed findings mentioned earlier, indicating both need satisfaction and frustration of outgroup's needs can uniquely predict solidarity. Earlier work linked the perceptions of disadvantaged groups' need satisfaction to solidarity due to perceptions of deservingness (see Helbling & Kriesi, 2014; Kotzur et al., 2019). Similarly, the impact of outgroup need satisfaction may be partially driven by heightened feelings of efficacy and hope for social change (Cohen-Chen & van Zomeren, 2018), whilst outgroup need frustration might be linked to justice-related emotions such as anger and outrage (see Becker et al., 2011; Çakmak et al., 2024). How such well-established predictors of solidarity interact with basic needs amongst allies with different statuses is an area that remains unexplored.

We believe that our model can provide fruitful ground for further theoretical and empirical inquiry into the relationship between needs and solidarity. In our theorizing, we focused on general needs and did not explore whether specific needs for autonomy, relatedness and competence facilitate solidarity in different ways. For example, previous work suggests that allies' need for acceptance and disadvantaged groups' need for empowerment – conceptually similar to relatedness and autonomy needs respectively – may be the key drivers of solidarity (Selvanathan et al., 2020). We were unable to empirically differentiate between different needs in our studies, but that may be because we did not investigate the needs of allies from perpetrator groups, but only from bystander groups. Likewise, future work could look into the potential interaction between allies' own needs and their perceptions of the disadvantaged group's needs. For instance, in examining White's support for the BLM movement, Uluğ and Tropp (2020) found that witnessing discrimination (an other-focused concern) heightened intentions to engage in collective action for racial justice, primarily by increasing awareness of one's own privileged position (a self-focused concern). This suggests that self-focused and other-focused concerns may interact in shaping solidarity.

Limitations

As our studies employed cross-sectional designs, we cannot make causal inferences. Testing the mediation models reported would ideally call for a longitudinal approach to assess whether the changes in basic needs would translate into changes in solidarity over time, providing a stronger inference of causality and allowing for a more rigorous examination of the direction between individual and group-level needs. Furthermore, the absence of autoregressive paths in cross-sectional models may result in inflated estimation of path coefficients (Maxwell & Cole, 2007). It is important to replicate and extend these findings with longitudinal and experimental designs to provide a deeper understanding and stronger inference of causality on how basic needs influence solidarity.

We employed convenience sampling which inherently limits representativeness. The relatively unstable estimates obtained through bootstrapping further support this concern. Furthermore, a particular constraint for low-status allyship stems from the lower model fit in Study 2, which may speak to our model better explaining high-status allyship where basic needs were more distinctly separated.

Moreover, the broader political context in which allies are acting, as well as public opinion, has been supportive towards Ukrainian refugees and striking university staff. It is possible that perceptions of allies' own needs outweigh the perceptions of disadvantaged groups' needs if those groups are stereotypically seen less favourably, such as Palestinians or Syrian refugees, than Ukrainian refugees and university staff. The potential mobilizing effect of perceived outgroup needs may be moderated by general attitudes towards the outgroup in question and the perceived commonality with them. Therefore, whilst our study

contributes valuable insights into the psychological mechanisms of solidarity, we caution against overgeneralizing our results without considering these limitations (see Appendix M: S1).

CONCLUSION

We take a novel theoretical approach to the topic of solidarity and allyship by bringing together the insights from Self-Determination Theory and Social Identity Theory. In two studies with allies from high- and low-status groups, we found that allies' own needs matter for solidarity. Specifically, we demonstrate that the satisfaction (vs. frustration) of allies' own basic needs can motivate normative (vs. non-normative) solidarity with disadvantaged groups. Moreover, we point to the importance of allies' perceptions of disadvantaged groups' needs, although their impact on solidarity varies depending on the specific context and the status of allies. Furthermore, our findings stress the importance of both group-level and individual-level needs in explaining solidarity, but this distinction seems to be more relevant amongst high-status allies. Our work points to the importance of allies' status and political context in understanding the relationship between basic needs and solidarity actions.

AUTHOR CONTRIBUTIONS
Ahmed Faruk Sağlamöz: Conceptualization; methodology; software; data curation; investigation; validation; formal analysis; visualization; resources; writing – original draft. **Maja Kutlaca:** Conceptualization; investigation; methodology; supervision; writing – review and editing. **Ana C. Leite:** Conceptualization; investigation; methodology; supervision; writing – review and editing.

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CONFLICT OF INTEREST STATAMENT
The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT
All data, code, materials and supplementary analyses can be found at https://osf.io/a2p6x/?view_only=63d305caa9a34e0b884275fc1ddfbd58.

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