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WHY WE NEED A NEW NORMATIVISM ABOUT COLLECTIVE ACTION

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What do we owe each other when we act together? According to normativists about collective action, necessarily something and potentially quite a bit. They contend that collective action inherently involves a special normative status amongst participants, which may, for example, involve mutual obligations to receive the concurrence of the others before leaving. We build on recent empirical work whose results lend plausibility to a normativist account by further investigating the specific package of mutual obligations associated with collective action according to our everyday understanding. However, our results cast doubt on a proposed obligation to seek the permission of co-actors before exiting a collective action, and suggest instead that this obligation is a function of explicit promising. We then discuss how our results pave the path for a new normativism, a theory that neither under- nor overshoots the target given by our common conception of the interpersonal obligations present in collective action.

Keywords: shared agency, collective intention, collective action, interpersonal obligation, joint commitment.

I. INTRODUCTION

What do we owe each other when we act together? According to normativists about collective action, necessarily something, and potentially quite a bit. They contend that collective action inherently involves a special normative status amongst participants, which may include a variety of obligations, including obligations to do one's part, and even to faithfully follow through on other's intentions.[1] By contrast, according to non-normativists, we might not owe our partners anything special at all. They argue that some collective actions may not involve normative relations, and where there are obligations between participants they're simply the result of what we owe someone as a person, not as a co-actor.[2]

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[1] An example of a non-normativist view is Bratman (2009, 2014).

[2] Examples of normativist views that defend one or more of these obligations include Gilbert (2009, 2013) and Roth (2004, 2014).

Previous empirical research suggests that the normativists are on the right track with respect to capturing our everyday understanding of collective action.[3] It appears that, according to that understanding, there is a special status possessed by all participants in a collective action, which structures their deliberations about how to carry out the action, results in individual obligations to perform actions necessary to the completion of the collective action, and requires that, in order to leave the collective action, an individual make their withdrawal public. In short, there is an obligation of each either to execute the action or to notify the others they are leaving. This special status, which involves normative concepts like obligation and commitment, is present even in morally wrong collective actions.

Here we present new research that clarifies and deepens our understanding of how normativity and collective action are associated. Our results suggest that our everyday intuitions separate kinds of sociality according to the way the people involved are normatively bound together. People's sensitivity to these relations is such that asking them to first consider the presence or absence of certain normative relations amongst co-actors—such as an obligation to seek permission to exit a given action—can modify their later judgements about just how together those co-actors were. Specifically, we've found evidence that asking people about an obligation that isn't present in collective action reduces people's sense that others are together, while asking them about an obligation associated with collective action cancels out that reduction.

This paper focuses on the most prominent and detailed normativist view, posited by Margaret Gilbert. We focus on Gilbert for two main reasons. First, the comprehensive nature of her view enables it to generate a range of empirical predictions about participant judgements. One of these predictions is unique to her view, namely that judgements of *togetherness* will be associated with judgements that there is an obligation to seek the permission of co-actors before leaving a collective action, even in minimal cases that do not include further obligation-generating features like reliance or mutual assurance. Our empirical research was developed in part to test this particular judgement about collective action. As such, it engages most directly with her work. Secondly, Gilbert was the focus of previous empirical research, which argued that normativists have the upper hand, and so, the next natural step for empirical investigation on this topic is to test whether her particular version of normativism is well suited to the task of explaining collective action.

Because of this emphasis we introduce the issues of collective action and normativity by way of a discussion of her view, which then leads into our presentation of the empirical results. A key result suggests that, with respect to our intuitive conception of collective action, Gilbert's view gets the normative

[3] See Gomez-Lavin & Rachar (2019).

relations involved in collective action wrong. Our results show that the obligation to seek the permission of co-actors before leaving is not associated with collective action, but rather with promising, a distinct kind of sociality that is not essential for collective action. We go on to argue that, given the structure of Gilbert's view and the argumentative strategy she employs, these empirical results are particularly consequential for her.

Finally, we turn to the upshot of this research for theories of collective intention and action in general. Our results replicate earlier findings suggesting that our common understanding of collective action is normativist, from which we conclude that there is reason to prefer a normativist view of collective intention. We will not here argue that all extant normativist views are subject to the criticisms we raise against Gilbert's view. Instead, we hope to show that since the standard normativist account gives the wrong picture of the package of normative relations involved in collective action, what we need is a new standard normativism.

I.1 Normativism and the Obligation to Seek Permission

Following most people in the philosophical literature, we'll assume that (1) there is a pre-theoretical conception of acting together that goes beyond the production of a non-distributive outcome; (2) this pre-theoretical phenomenon cannot be adequately dealt with in terms of personal intentions with regular contents and mutual belief or common knowledge, that is, in terms of strategic reasoning and mutual responsiveness; and, (3) if we are doing something collectively, then we collectively intend to do it.[4]

All three of these points are assumed by Gilbert, who gives us the fullest account of the relation between acting together in the sense specified and normativity. The fundamental concept in Gilbert's account of collective (or shared) intention and action is *joint commitment*.[5] Our collectively intending something is a matter of being jointly committed to doing that thing.[6] And, per (3), which we can think of as the collective version of the simple view of intention,[7] we are collectively doing something when we collectively intend to do it.[8] This gives us the basic structure of Gilbert's view, although not much of an explanation: joint commitments are primitive and provide the foundation for collective intentions, and collective intentions explain collective actions.[9]

[4] Gilbert (2009, 2013), Alonso (2009), Roth (2004, 2014), and Bratman (2009, 2014) accept versions of these assumptions.

[5] Consult, e.g., Gilbert (2013).

[6] Consult, e.g., Gilbert (2013: 83).

[7] In its weaker form, the simple view of intention states that if A intentionally φ's, then A intends to φ.

[8] Gilbert (2013: 89) adopts the stronger, biconditional version of the simple view.

[9] Gilbert uses 'joint commitment to intend', 'collective intention', and 'shared intention' interchangeably. We follow Gilbert in that usage.

Joint commitments are commitments necessarily involving two or more people. They are not reducible to, nor are they mere concatenations of, personal commitments. Say we are jointly committed. It is not that I am committed and you are committed. Instead, the joint commitment is a commitment *of ours*, that is, you and I as a team or unit. What makes Gilbert a normativist is that joint commitments to intend necessarily involve interpersonal obligations and entitlements. In her words, 'obligations and correlative rights inhere in any joint commitment' (2013: 49–50). In other words, the process by which joint commitments are created—mutual expressions of readiness to joint commit under conditions of common knowledge—is also an obligation-generating process. This gives us her 'obligation criteria' for shared intention: 'each party to a shared intention is obligated to each to act as appropriate to the shared intention in conjunction with the rest' (2009: 175). Acting appropriately to the shared intention involves attempting to promote the fulfilment of the shared intention, not acting contrary to it, and being subject to rebuke for failing to fulfil these obligations. These obligations are relational and specific. Having a joint commitment entails that 'one is obligated 'to' a particular person or persons, as well as obligated 'to do' something or other' (2000: 104). Also important is the fact that obligations of joint commitment are directed, 'non-moral' obligations.[10]

Just as joint commitments require the will of all to be brought into existence, and, in turn, they require the will of all to be rescinded. No party to a joint commitment has the power to end the joint commitment simply by changing their mind. Because it is a commitment of *ours*, only we can rescind it. For an individual then, ending a joint commitment to intend involves either successfully executing the behaviour it specifies or getting each of the participants to express their readiness to end it. This is expressed succinctly in Gilbert's 'concurrence criterion': 'absent special background understandings, the concurrence of all parties is required in order that a given shared intention be changed or rescinded, or that a given party be released from participating in it' (2009: 173). This ensures that co-actors cannot unilaterally leave a joint commitment without being subject to rebuke. Attempting to do so is not ending the joint commitment but violating it.

Taking stock, Gilbert's view is an instance of a normativist view. According to her, when we are acting together in the sense of collaboration or partnership, we are jointly committed. This normative state involves a special standing with respect to other's actions. Each of us is obligated to do our part, on pain of rebuke, and to receive the assent of the others before leaving.

[10] This feature of Gilbert's account is explored in the previous empirical research, see Gomez-Lavin & Rachar (2019: Study 6). Consult Gilbert (2009: 184) for an argument for this claim based on the idea that there can be joint commitment obligations in immoral collective actions. She elsewhere notes the difference between obligations of joint commitment and other kinds of obligation in terms of 'context-sensitivity' (2007: 159–60) and 'internality' (2000: Ch. 4).

II. THE WALKING CASE: THE OBLIGATION TO SEEK PERMISSION

Previous empirical research on collective action found evidence for an obligation to notify other joint actors when exiting a collective action. This provides initial support for normativist views in general, but Gilbert's view involves significantly more. Because of her claim that, just as joint commitments must be created by all, they can be rescinded only by all, she is committed to the view that no one can unilaterally exit a collective action. Each participant has an obligation to seek the permission of the other participants before leaving. This entailment is expressed in her 'concurrence criterion', stated above, and is made explicit in several places in her writing.[11]

In order to test whether the obligation to seek permission is present in our common conception of collective action we modified the original paradigm by adding new measures and conditions. The original paradigm features what has been labelled the 'Walking Case', a series of vignettes adapted from thought experiments offered by both Gilbert and Bratman in defence of their respective normativist and non-normativist theories of collective action.[12] The original Walking Case involves three conditions: the first, serving as the control, presents no evidence that the two people are walking together; the second, borrowed directly from Bratman, presents minimal evidence; and the third increases those behavioural signals. In each case, one participant in the walk suddenly peels off. These vignettes serve as the basis for our *Control*, *Low Collective Action*, and *High Collective Action* conditions.[13]

Here we included a further fourth condition that involved an explicit exchange of promises, both to determine whether judgements of togetherness would increase above and beyond the other conditions, and to test whether explicit promises have a different effect on our measures than other behavioural signals that the participants are acting together. There is significant philosophical interest in comparing promises to other behavioural signals for the following reason. If there is no difference between the no collective action condition—that is, our *Control* condition—and the collective action conditions, and there is a difference between the collective action conditions and the *Promising* condition, then it looks as though seeking permission is a function of promising rather than collective action. But if there are significant differences between

[11] Consult, in addition to the above citations, Gilbert (2000, 2009).

[12] Consult Gomez-Lavin & Rachar (2019). The Walking Case is a useful entry point into the debate since it generates different predictions by normativists and non-normativists. Bratman (2006: 7), as well as Alonso (2009: 471, fn. 76), claim that it does not involve obligations because it does not involve reliance or mutual assurance. Gilbert (2013: 25–7), on the other hand, is committed to the claim that does involve obligations, because it is a genuine instance of acting together.

[13] All vignettes, conditions, and measures are reproduced in Part B of the Appendix to this paper.

the *Control* condition and each of the other three conditions, then it looks like seeking permission is a function of the collective action, rather than promising, as Gilbert's view would predict.

II.1 Method and predictions

After being randomly assigned to one of these four conditions, our 214 American, adult participants (47% self-identified as female) read the respective vignette and responded to our two dependent measures, which were displayed in random order and are listed below[14]:

1. *Togetherness Measure:* 'To what extent were the two people acting together' anchored at 0 ('Not at all') and 6 ('Totally working together').
2. *Permission Measure*: 'Does the person who peels off have to seek permission to leave from the person who stays?' anchored at 0 ('Not at all') and 6 ('Totally').

Following earlier studies, we hypothesized that participants would rate *togetherness* significantly higher in the *Promising* condition, the *High Collective Action* condition, and the *Low Collective Action* condition compared to the *Control* condition, but not between *Low Collective Action*, the *High Collective Action*, and the *Promising* conditions.[15] That is, ratings of *togetherness* should not scale linearly with additional behavioural evidence of joint action; once an action is judged to be a collective action, then it is judged that the actors are acting *together*. With respect to the second measure, we adopted Gilbert's perspective, generating the hypothesis that participants will rate the appropriateness of seeking permission significantly higher in the *Promising*, the *High Collective Action*, and the *Low Collective Action* conditions compared to our *Control* condition. Again, following Gilbert, we hypothesized that there should be no significant difference amongst *permissibility* ratings for our three collective action conditions. That is,

[14] Participants were assigned as follows: 58 to our *Control* condition, 52 to our *Low Collective Action* condition, 50 to our *High Collective Action* condition, and 54 to our *Promise* condition. An additional 32 participants were excluded from further analyses for either failing to complete the study or failing one of our two 'Bot Checks' (reproduced in Part B of the Appendix). Sample sizes were determined by consulting Gomez-Lavin & Rachar's (2019) similar paradigm. Furthermore, an average of 48 participants per condition was established using the G*Power software analysis tool based upon the median differences amongst the three conditions in their Study 4, which most closely mirrored our own present design (original *Control* mean, hereafter 'm,' $m \sim 1$, *Low Joint Action* $m \sim 3$ yielding an approximate 20 participant per condition sample size, with comparisons between *Low Joint Action* and *High Joint Action* [$m \sim 4$] yielding an approximate 76 participant per condition sample size. As the midpoint of these two analyses approximated 48 participants, we chose to recruit ten additional participants to mitigate for any who failed to complete the survey or were excluded for failing our 'Bot Checks').

[15] Predictions for each, alongside a qualitative summary of our results, are contained in Tables 1 and 3 in Part A of the Appendix.

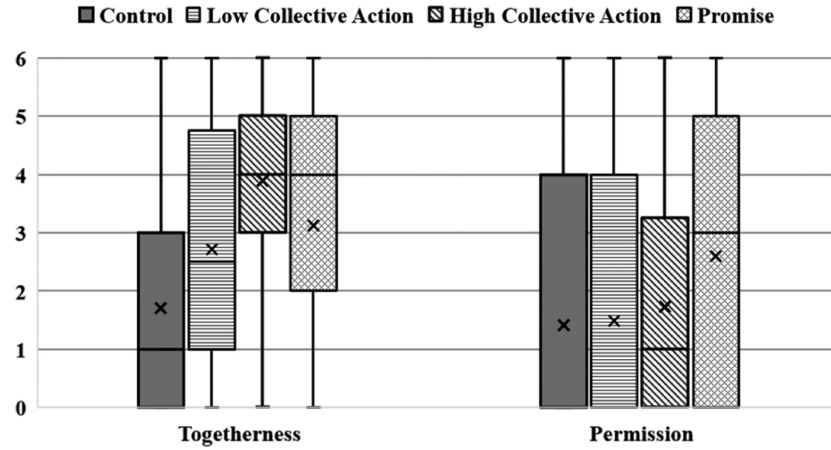

Figure 1. A box and whisker plot comparing participant responses across our dependent measures in the Walking Case. These represent the distribution of participant ratings amongst our conditions and measures, with '×' representing the mean and thick, horizontal bars representing the medians (where no bar is present, the median is at 0). 'Whiskers' represent the lowest and highest quartile responses, and boxes represent the middle two quartile responses.

according to Gilbert, the obligation to seek permission should be concomitant with participants' judgements that an action is in fact a collective action.

II.2 Results

Our results speak against these normativist hypotheses. As expected, participant ratings were not normally distributed and thus required the use of non-parametric statistics.[16] We found a significant main effect across both of our dependent measures.[17] Participants successfully tracked increasing evidence of collective action between our *Control* condition (median, or '*mdn*' = 1) and our additional *Low* (*mdn* = 2.5) and *High* (*mdn* = 4) *Collective Action* and *Promise* (*mdn* = 4) conditions (refer to Fig. 1). While there was a significant difference between our *Control* compared to all other conditions, our participants *also* gave significantly higher ratings of *togetherness* in the *High Collective Action* condition

[16] Kolmogorov–Smirnov and Shapiro–Wilk tests for all our conditions $p < 0.05$. Non-normal data were expected and are in-line with prior research with similar paradigms in different areas of experimental philosophy (Fingerhut *et al* 2021; Gomez-Lavin and Rachar 2019; Diaz, Viciana and Gomila 2017).

[17] Kruskal–Wallis independent samples tests: $H(3) = 32.798$, $p < 0.001$, $E^2_R = .154$ for togetherness, and $H(3) = 13.004$, $p = 0.005$, $E^2_R = 0.061$ for permission. Consult Table 11 in Part A of the Appendix for summaries of main effects.

compared to the *Low Collective Action* condition, unlike in prior studies.[18] Even though in prior studies the separation of *togetherness* scores for the *Low* and *High Collective Action* conditions was trending towards significance, our present result is surprising.[19]

As for our new *Permission Measure*, while we did find a significant main effect, this was largely driven by participants' ratings in our *Promise* condition (*mdn* = 3), rather than our *Low* and *High Collective Action* conditions. That is, participants gave significantly higher permission scores in our *Promise* condition, than in our *Control* (*mdn* = 0) and *Low Collective Action* conditions (*mdn* = 0).[20] It is worth emphasizing that in the *Low Collective Action* condition the median score was 0. Additionally, the separation of scores between our *Promise* and our *High Collective Action* conditions (*mdn* = 1) was trending towards significance.[21] And comparisons of participant ratings for permission between our *High Collective Action* and our *Low* and *Control* conditions were not significant.[22]

II.3 Discussion

There are two main upshots of the results of this study: one for the validity of the earlier experiments and the other for Gilbert's view of collective intention. First, these data raise the possibility that the central measure for *togetherness* failed to cleanly replicate between this study and the previous empirical work on collective action. In earlier work, there was no linear increase between *Low* and *High Collective Action* conditions, which is what generated our hypothesis. That there was such an increase here is surprising and potentially problematic for this empirical paradigm, since the materials and methods are nearly identical: the only modifications were the replacement of the prior *Notification Measure* with our present *Permission Measure*, and the addition of a fourth, *Promise* condition. Given that our design is between-subjects, only the substitution of our *Permission Measure* for the original *Notification Measure* could account for the diminished ratings of *togetherness*—which was particularly pronounced amongst our *Low Collective Action* conditions.[23] Because of the importance of this result for calling into question the validity of the earlier research on collective action,

[18] Pairwise comparison: $z = 2.98$, $p = 0.003$, $r = 0.295$. For further results consult Tables 2 and 4 in Part A of the Appendix.

[19] Results of Gomez-Lavin & Rachar's (2019) Mann–Whitney pairwise test between 'low' and 'high' joint action conditions: $z = 1.506$, $p = 0.061$, uncorrected for multiple comparisons.

[20] Mann–Whitney pairwise tests: control versus promise conditions ($U = 1057$, $z = 3.158$, $p = 0.002$, $r = 0.298$), low versus promise condition ($U = 986$, $z = 2.768$, $p = 0.006$, $r = 0.269$).

[21] Mann–Whitney pairwise test: $U = 1064$, $z = 1.919$, $p = 0.055$, $r = 0.188$.

[22] Mann–Whitney pairwise tests: control versus high conditions ($U = 1216$, $z = 1.587$, $p = 0.112$, $r = 0.156$), low versus high condition ($U = 1156$, $z = 1.038$, $p = 0.299$, $r = 0.103$).

[23] Present *Low Collective Action* median = 2.5. Median for the counterpart condition in Gomez-Lavin & Rachar (2019) = 3. For comparison, the median of our present *High Collective Action* = 4, which is identical to the earlier 2019 result.

we developed a new experiment to test whether the new *Permission Measure* modulated participants' *togetherness* ratings. This follow-up study is described and discussed in Section III.

Secondly, the results for the *Permission Measure* suggest that, *pace* Gilbert, the obligation to seek permission does not appear to be a function of acting together, but rather of promising. On Gilbert's view, the normative relations come as a package. Once involved in a collective action, the participants are obligated to each other in characteristic ways. Our results radically diverge from predictions based on her view. In the *Low Collective Action* condition, for example, our participants judged that the characters are acting together, but that there is no obligation to seek permission, dramatically so. The median score was 0. Further, there was a significant difference between the *Low Collective Action* condition and the *Promising* condition, suggesting that, unlike the obligation to notify, we need more robust forms of interaction than acting together to generate the obligation to seek permission; we need to promise. Since judgements about permission do not track judgements of collective action, it seems that exiting a collective action *does not* require seeking the permission of the co-actors.

III. ORDER-EFFECT STUDY

Because the results of our first study do not match the results of earlier research on collective action with respect to *togetherness*, we designed a follow-up study in order to measure whether, and to what extent, our new *Permissibility Measure* affected participants' ratings on our *Togetherness Measure*. As explained in the previous section, participants gave higher *togetherness* ratings for our *High Collective Action* and *Promise* conditions than in our *Low Collective Action condition*. This result was not expected, as togetherness ratings in prior research utilizing a similar paradigm (Gomez-Lavin and Rachar 2019) did not significantly increase between *Low* and *High Collective Action* conditions; rather, it seemed as though once a given threshold of evidence that characters in the vignette were together was crossed, participants gave elevated (e.g. above the mid-point) ratings of togetherness. As prefaced, this raises the possibility that we have failed to replicate prior findings, and motivates further analysis to determine the contributing factors present.

Only two differences exist between our present study and prior published research, namely the presence of our new *Permissibility Measure* and the addition of a fourth condition. As our design is between-subjects, only our new measure could account for our divergent results. Starting from the idea that the order in which participants consider and rate each measure may affect their perception of the situation, our hypothesis is that the new *Permissibility Measure* dampened participants' judgements of togetherness. In particular, when participants first

consider the question 'Does the person who peels off have to seek permission to leave from the person who stays?', their demonstrated reticence to agree with such a norm—as evidenced by their low permission ratings in all but our *Promise* condition—may prime or colour their further consideration of whether the characters in the vignette were acting together. In other words, being asked about permission highlights a potential normative bond between the characters in the vignette, but it is a potential normative bond that the characters do not actually share, focusing our participants' attention on a way in which the characters are separate. So, because our participants do not think there is an obligation to seek permission, they are primed to think that the characters are independent, lowering their judgements about the extent to which the characters are acting together. At the same time, it is likely that we did not observe much of a dampening effect due to our introduction of the *Permissibility Measure* in the *High Collective Action* condition because of its robust description of the characters' coordinated behaviour, namely their walking, chatting, and laughing together. The liminal nature of the behavioural descriptions in our *Low Collective Action* may have allowed for the malleability of participant perceptions caused by the introduction of our new measures. As our measures were randomly presented in our first study, we cannot determine the order in which each was presented to any given participant, hence motivating our present study.

III.1 Methods and predictions

To determine whether our *Permission Measure* influenced togetherness ratings, and whether this influence is tied to the order in which participants considered our questions, we designed a between-subjects study featuring five variants of our *Low Collective Action* condition. We chose to focus on this condition as it strongly deviated from prior results using a near identical paradigm, unlike data from our *Control* and *High Collective Action* conditions. Additionally, it displayed the most variability of any of our test conditions in our first study.[24] As a comparison, we chose to directly replicate Gomez-Lavin & Rachar's (2019) paradigm as described in their Study 4. Their experiment features a *Notification Measure*, asking participants 'Should the person who peels off notify the other that they're leaving?' anchored at 0 ('No obligation at all to notify') and 6 ('Total obligation to notify'). Though these anchors are more descriptive than those for our present two measures, we chose to keep them identical to the earlier paradigm in order to allow for the cleanest replication. This allowed us to directly compare participants' ratings of each normative relation and their effects, if any, on our *Togetherness Measure*.

[24] *Low Collective Action* togetherness standard deviation (hereafter '*SD*') = 1.923, *High Collective Action SD* = 1.547, *Promise* condition *SD* = 1.833.

As in our first study, we recruited 192 American adult participants from Amazon's Mechanical Turk platform (44% self-identified as female) who were randomly assigned to one of the five conditions below:

C1. Notification First. Participants first answered the *Notification Measure*, followed by the *Togetherness Measure* on a separate page, $n = 37$.
C2. Permission First. As above, with participants first answering the *Permission Measure*, $n = 31$.
C3. Notification Second. Participants first answered the *Togetherness Measure*, followed by the *Notification Measure* on a separate page, $n = 37$.
C4. Permission Second. As above, with participants answering the *Permission Measure* on a separate page, $n = 45$.
C5. Simultaneous Presentation. Here participants were asked to answer all three measures, randomly ordered, after reading the vignette, $n = 42$.

As mentioned above, we predict that participants' togetherness ratings will be significantly dampened when they're asked to consider the *Permission Measure* first, as in Condition 2. We also expect that, consistent with the prior published research and our first study, participants will give significantly lower ratings for our *Permission Measure* than for the new *Notification Measure* across all conditions. Finally, we expect that when presented simultaneously, as in Condition 5, participants should give intermediate togetherness ratings due to the normative tension generated by participants' reticence to agree with Gilbert's concurrence criterion, and our expectation—based on prior published research—that they will largely agree with the *Notification Measure*.[25]

III.2 Results

The results supported our predictions, with one exception. As with our first study, data were not normally distributed, necessitating the use of non-parametric statistics.[26] When comparing all non-simultaneous conditions (i.e. Conditions 1 through 4), we did find evidence for a significant main effect across our normative measures, and evidence for a main effect of our *Togetherness Measure* across conditions was trending.[27] These results were not surprising, as we expected scores on our *Notification Measure* to be substantially higher in the conditions where they were present than scores for our *Permission Measure*. We also predicted a substantial deviation of *Togetherness* ratings on only one

[25] Again, for a complete description of our predictions, their confirmation-status, and our statistical tests, consult Tables 5–10 in Part A of the Appendix.

[26] Shaprio–Wilk and Kolmogorov–Smirnov tests for all conditions $p < 0.011$.

[27] Kruskal–Wallis independent samples tests: $H(3) = 6.864$, $p = 0.076$, $E^2_R = 0.046$ for togetherness, and $H(3) = 51.97$, $p < 0.001$, $E^2_R = 0.35$ for our normative measures. Consult Table 11 in Part A of the Appendix for more information and effect sizes.

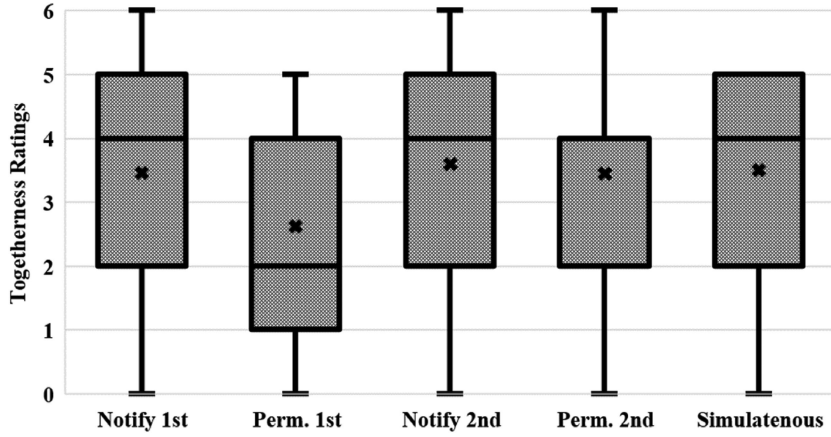

Figure 2. A box and whisker plot comparing participants' ratings on our *Togetherness Measure* across our five conditions. Medians for all conditions, except in Condition 2 where participants were tasked with first answering our *Permission Measure*, are identical at 4.

of the non-simultaneous conditions, namely Condition 2. This is borne out explicitly in our data, and is made clear in Fig. 2.

Focusing first on *Togetherness*, ratings given in Condition 2, in which participants were required to give a score on the *Permission Measure* first, were significantly lower (*mdn* = 2) than ratings for any other condition (all *mdns* = 4), including in our Simultaneous Condition 5 (all pairwise comparisons against Condition 2: $p \leq 0.05$).[28] These results both confirm our first prediction and suggest that our nearly significant main effect obtained for *Togetherness* ratings above was largely driven by participants' lower *Togetherness* scores in Condition 2 where they were asked about our *Permissibility Measure* first. Furthermore, this confirms our suspicion that in our first study, as reported above, the significant separation between *Togetherness* scores in the *Low* and *High Collective Action Conditions*—which was not expected and raised the possibility that this paradigm failed to cleanly replicate from prior published work—can be explained by the introduction of our new normative measure.

Comparing scores for our two normative measures, participant ratings for the *Notification Measure* (all *mdns* = 5) were in each case significantly higher than their ratings for *Permissibility* (all *mdns* = 1, all pairwise comparisons between *Permissibility* and *Notification* scores, $p < 0.001$), including in the Simultaneous

[28] Mann–Whitney pairwise comparisons for our togetherness measure: Permission First versus Notification First ($U = 417$, $z = 1.976$, $p = 0.049$, $r = 0.239$), versus Notification Second ($U = 387$, $z = 2.349$, $p = 0.019$, $r = 0.285$), versus Permission Second ($U = 517$, $z = 1.957$, $p = 0.05$, $r = 0.224$), versus Simultaneous Presentation ($U = 460$, $z = 2.195$, $p = 0.028$, $r = 0.257$). Pairwise comparisons amongst other conditions all $p \geq 0.39$, consult Tables 6 and 10 in Part A of the Appendix for full results.

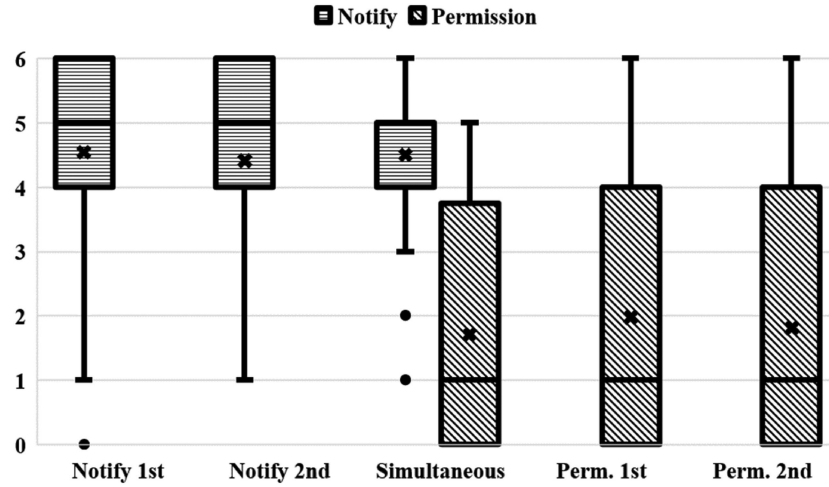

Figure 3. A box and whisker plot comparing participants' ratings for our *Notification* and *Permission Measures* across our five conditions. Recall that participants were tasked with answering our *Notification Measure* in the first two conditions from the left (i.e. 'Notify 1'and Notify 2'), our *Permission Measure* in the last two conditions from the left (i.e. 'Perm. 1' and 'Perm. 2[d]'), and both measures in the 'Simultaneous' condition. The median response for the *Notification Measure* in our Simultaneous condition was also 5.

condition.[29] This is made very clear in Fig. 3. These results also confirm our second prediction; namely, that participants are far more reticent to agree with Gilbert's concurrence criterion than with other norms, such as the obligation to notify that one is exiting a collective action.

In our Simultaneous condition, participants' ratings were surprisingly consistent with their ratings in other conditions. That is, their ratings for the normative measures were not significantly different from normative ratings in other conditions (all pairwise comparisons between similar normative measures $p \geq 0.592$).[30] More interestingly, *Togetherness* scores in the Simultaneous condition ($mdn = 4$) were only significantly different from scores from Condition 2, where participants were asked to respond to the *Permissibility Measure* first ($mdn = 2$, pairwise comparison $p = 0.028$). Instead, *Togetherness* scores were very similar to those conditions in which participants were asked to respond to our *Notification Measure*, or when they were asked to rate *Togetherness* first. Unlike our prediction, then, *Togetherness* scores were not at all dampened by the presence of the *Permissibility Measure* when participants were also asked to consider whether there is an obligation to notify.

[29] For full results, consult Tables 8 and 10 in Part A of the Appendix.
[30] For full results, consult Table 10 in Part of the Appendix.

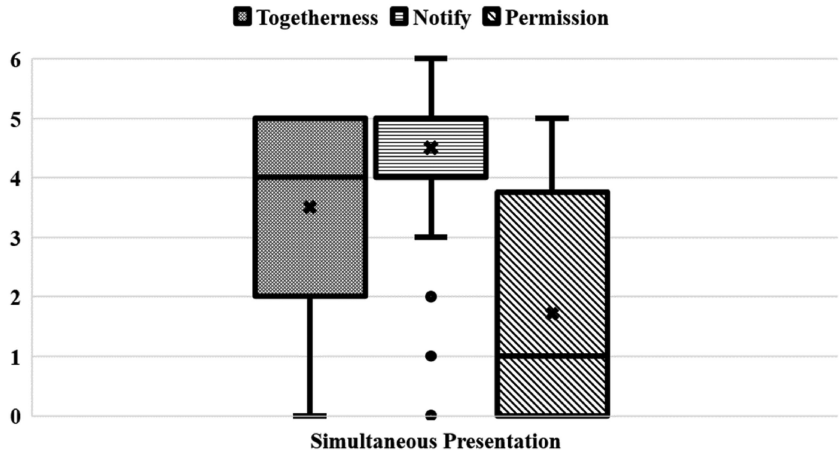

Figure 4. A box and whisker plot comparing participant responses for all three measures in our Simultaneous condition. The median for participants' responses in our *Notification Measure* was at 5 on our scale.

Finally, consistent with our second prediction, participant ratings for *Permissibility* were significantly lower than their *Notification* scores (consult Fig. 4) for results from Simultaneous condition.[31]

III.3 Discussion

Our results show that the order in which the measures were presented to our participants does indeed affect their judgements of togetherness. Being directed towards a normative bond that doesn't exist between the characters is enough to lead our participants to judge that the characters are less together, explaining the discrepancy between the earlier research and our first study with respect to judgements of togetherness.

Interestingly, our results also suggest that the presence of the *Notification Measure* overrides whatever dampening effect is produced by participants' reluctance to agree with Gilbert's concurrence criterion. Our interpretation of these results is based on the idea that there is a plurality of kinds of sociality.[32] Drawing our participants' attention to the obligation to notify points to a kind of sociality or togetherness between the characters, which is present, while drawing their attention to the lack of an obligation to seek permission points them to another, which is missing. When they see the questions at the same time, they judge that the characters are engaged in some form of sociality, just not one that would generate the obligation to seek permission.

[31] Wilcox signed rank test: $z = 5.042$, $p < 0.001$, consult Table 11 in Part A of the Appendix.
[32] Consult Asarnow (2020) for further discussion of this idea.

But, our participants seem to recognize that the fact that one form of sociality involves a different set of normative requirements than another does not entail any judgement about how much togetherness that first form of sociality involves. So, when the possibility of the plurality of sociality is not made explicit, because the participants only see the *Permission Measure*, they tend to lower their judgements of togetherness. But, when plurality is made explicit, because they are presented with both questions, their judgement about the absence of one kind of normative relation doesn't affect their judgements of togetherness.

This result strongly suggests that, at least with respect to the attendant normative relations, acting together and making promises are distinct social phenomena, with the obligation to notify associated with collective action and the obligation to seek permission associated with promising.

IV. GENERAL DISCUSSION

The main consequence of these results is that there is no empirical support for Gilbert's claim that her concurrence criterion is a legitimate criterion for assessing theories of collective intention. People can act together without being obligated to seek other's permission to leave, according to our participants.[33] And, there is evidence that seeking permission is a function of something not essential to collective action, namely promising. This suggests that both aspects of the concurrence criterion are mistaken. In addition to the lack of a requirement to seek permission, the background conditions Gilbert refers to also work the other way. Absent special understanding, for example given by promises, people judge that co-actors can unilaterally leave some collective actions without wronging each other, so long as they notify the other party of their intent.

The significance of these results can be brought into focus by considering Gilbert's theory of promising.[34] Gilbert offers a theory of promising on which promises are special instances joint commitments. They are special instances because they must be created by an explicit process, which is not required for all joint commitments, and they have asymmetric content—only the promisee is obligated to perform specific actions as part of the content of the promise—which also is not a general feature of joint commitments.[35] Gilbert argues for

[33] We would like to note one direction of further research that would deepen this interpretation of the consequences of the empirical research for Gilbert's account. Gilbert does not require that the request for permission be couched in explicit terms, potentially blurring the lines between informing one's partner and implicitly requesting permission. While we attempted to capture this in our measure by contrasting 'seeking permission', which may be implicit or explicit, with 'notifying', which does not, to us, connote awaiting release from one's partner, we do think that more research is called for to further explore the subtleties this issue raises.

[34] Consult, e.g., Gilbert (2013: Ch. 12 and Ch. 13).

[35] Consult, e.g., Gilbert (2013: 316–7).

her straightforward application of her theory of joint commitment to promising by pointing out the similarity of normative requirements between promising and joint commitments. Both generate directed obligations and both grant the promisee the 'power of release', the ability to rescind the promise upon request.[36] Gilbert argues that this corresponds to the obligations stemming from the concurrence criterion.[37] However, since our empirical results give us reason to doubt whether the obligation to seek permission is genuinely a part of collective action but no reason to doubt whether it is part of a promise, Gilbert is faced with a problem. There is no longer a correspondence between the normative situation in collective action and the normative situation in promising, so a direct application no longer seems plausible. Since they have two different sets of normative requirements, according to our common understanding, it is hard to see how one concept can explain both without appealing to some further features. Either joint commitments explain situations in which there is an obligation to seek permission with the corresponding power of release or they explain situations in which there is an obligation to notify but no obligation to seek permission. They cannot straightforwardly explain both. Because joint commitments entail an obligation to seek permission, it appears they are better suited to explain promising than collective action.

With respect to collective action, we have only shown that Gilbert's thought experiments do not generate the intuitions they are supposed to, according to her. However, as there is no empirical evidence to the contrary, we have reason to think that an obligation to seek the permission of the other participants before leaving is not a part of our everyday conception of collective action. Further, because of methodological differences between Bratman and Gilbert, the fact that the entailments of Gilbert's normativist view do not match up to our studies carries more weight than the results of the earlier studies that conflict with Bratman's non-normativist view.

Bratman adopts a functionalist view, characterizing roles that intention plays in the individual case according to his 'planning theory of intention' and then extending them to the collective case.[38] According to Bratman, we have independent reason to think that planning structures are central to our individual agency, and we can then investigate whether they also explain social phenomena. The foundational role he grants to a technical philosophical concept of intention gives him some distance from everyday intuitions, allowing

[36] This power is widely held to be an important part of promising. See, for example, Hart (1955: 180), Feinberg (1992: 188–9), Scanlon (1998: 301), and Owens (2012: 219–26).

[37] Gilbert recognizes that this leads to a potential conflict. The conflict arises because joint commitments are symmetrical—all parties have to receive permission from the other to rescind the joint commitment—while promises appear asymmetrical. Only the promisor is required to get the permission of the promisee to rescind the promise. But Gilbert denies this, claiming that the promisor has some ability to deny release from the promisee (2013: 319).

[38] Consult, e.g., Gilbert (2013: xi).

him room to argue that our participants may be mistaken, for example by confusing rational requirements with interpersonal obligations. But it doesn't leave him too much space, since he also claims that his philosophical account serves as a model for something that 'broadly coheres with pre-analytic talk of shared intention and of shared intention and shared cooperative activities' (2014: 86). Bratman's extension of his views of planning agency is theoretically interesting insofar as what it explains actually is a prevalent form of sociality, which, one may think, would be reflected in our everyday understandings of what is required of people when they act together. Rather than serve as a counterargument to Bratman's view then, the empirical results instead suggest certain explanatory limitations of it.[39]

By contrast, Gilbert sets up her account as explaining 'shared intention sentences', such as 'We're going to go shopping'. A shared intention is nothing more than 'what people refer to when. . . they utter everyday sentences of the form, for example, "We intend to do A", "We're going to do A", and the like, and are not using them elliptically for "We both intend to do A"' (Gilbert 2009: 168). This is special case of Gilbert's approach to many social phenomena, and she gives a compelling defence of the idea that one of the values of philosophy comes in revealing, clarifying, and articulating everyday concepts so that they can be used in the social sciences.[40] One of these everyday concepts concerns the 'togetherness' involved in acting together. Given this approach, the relevant question for evaluating Gilbert's view of collective intention on its own terms is not how well it explains the functional roles of intention applied to the collective case, but whether it matches up to everyday uses of shared intention sentences.

A consequence of this methodological framing is Gilbert's particular susceptibility to the empirical results on offer. Her argumentative structure places her judgements about the everyday features of collective action at the foundation. In her most direct response to Bratman, her argument runs as follows.[41]

[39] Bratman also adopts a second methodological strategy that mitigates the force of the empirical research in evaluating his view (2014). He holds that an account of shared intention may be combined with an independent account of interpersonal normativity which generates associated mutual obligations. He suggests a principle from the work of T.M. Scanlon based on mutual assurance, which does so. Our research here also casts doubt on that particular principle's ability to explain the interpersonal normativity of collective action, since that principle also entails an obligation to seek permission. However, the general strategy is still available, and so, further normative theorizing based on a different principle, for example based on reliance—a strategy explored in depth in Alonso (2009)—may find a connection between Bratmanian shared intention and interpersonal obligation that does account for judgements about the obligation to notify without generating an obligation to seek permission. For critical discussion of Bratman's and Alonso's theories, consult Rachar (2021). In general, we see the results of the empirical research as providing good reason to engage in that project of normative theorizing and theory revision.

[40] This extended argument runs through her work, but is highlighted in her (1989).

[41] Consult Gilbert (2009).

After introducing the topic and generally characterizing various potential positions, she attempts to establish the three conditions for an adequate account of collective action introduced above, the 'disjunction criterion', the 'obligation criterion', and the 'concurrence criterion'. The basis for these 'everyday' criteria is nothing more than 'observations on the way people think and talk about shared intention in everyday life',[42] which are illustrated through a series of collective action thought experiments meant to elicit the appropriate intuitions. The concurrence criterion is then used in the argument against views like Bratman's and for her joint commitment account. The fact that her thought experiments do not elicit the intuitions she thinks they will, at least in the case of the concurrence criterion, means that there is a deep problem for Gilbert. It is not simply that there is some mismatch between the philosophical account and our everyday view or that it fails to explain one judgement but provides an explanation of the rest; rather one of her underpinning premises is false.

Both Bratman and Gilbert implicitly accept that the ability to explain features of the form of sociality embodied in our collective actions is a reason to favour one view of collective intention over another. Combining the results of these studies with the results of previous empirical research casts doubt on the ability of both of the two most prominent accounts of collective intention to explain everyday features of collective action. While Bratman's view, in its current form, is unable to explain judgements about certain obligations in minimal and morally wrong collective actions, Gilbert's view overexplains, predicting judgements about stronger normative relations than are present in cases that do not involve promising. But only Gilbert rests the central argument for her view on intuitions about everyday cases. Our results here serve as a good reason to think that her intuitions are not widely shared, and so the concurrence criterion should not be accepted as an everyday feature of collective action. Since Gilbert's joint commitment view entails the concurrence criterion, it is an inadequate view of collective intention, on its own terms. So, while our results give further reason to think that broadly speaking a normativist view is well placed to explain our everyday understanding of collective action, it appears that Gilbert's is not.

Before concluding, it is important to stop and consider the hybrid nature of this project, which brings empirical methods to bear on central theoretical issues in social philosophy and ethical theory. Though this work shares a lineage with other recent developments in experimental philosophy, we think it is valuable to explicitly delineate the epistemic role that our use of empirical tools and statistical analyses can play within philosophical theorizing. When philosophical argumentation depends on the evidentiary role of readers' intuitions elicited by carefully crafted scenarios that serve as intuition pumps,

[42] Gilbert (2009: 171).

as is the case with both normativist and non-normativist positions on collective action, we can then use empirical tools to examine the scope, impact, and psychological factors that may drive the intuitions on which these arguments depend. Importantly, the data derived from such explorations do not alone serve to overturn what are ultimately complex theoretical viewpoints, nor could empirical investigation alone replace them. The philosophical theories we evaluate using these methods offer more than a set of particular obligations between participants; they construct theoretical explanations of these normative relations by proposing sources, grounds, or justifications of them. This contribution goes beyond what can be captured using empirical methods. Rather, when analyses suggest that there is a mismatch between the intuitions expected to arise and those that do, it can serve as a starting point for further reflection and possible theoretical revision—as our project demonstrates. As such, we should appreciate these tools as complimentary—and not antagonistic—to the process of understanding the social and ethical world that we inhabit. We want to know both what norms of collective action we accept and what justifies or explains those norms. A full normativism, then, will not only be sensitive to our social practices, it will also offer a normative theory of collective action.

V. CONCLUSION

Normativist views hold that collective intentions inherently involve obligations and entitlements between co-actors. They therefore seem well placed to explain the results of earlier empirical research, replicated here, that suggests there are obligations between participants even in minimal and morally wrong cases of collective action in our everyday conception of collective action.

Gilbert's joint commitment view of collective intention entails that we have an obligation to seek the permission of the other participants to leave a collective action. The reason Gilbert's view has this entailment is her claim that collective intentions are formed and rescinded by will of all. She holds that only once all have expressed their readiness is anyone committed, and only once all have given their permission is anyone released, which generates the obligation to seek permission. The experimental research presented here suggests that there is no such obligation in people's everyday understanding of acting together. In their judgement, there are minimal cases of collective action that do not involve an obligation to seek permission and the obligation to seek permission is only unambiguously present in cases that involve an explicit exchange of promises.

Because the structure of Gilbert's argument explicitly rests on the intuitions that lead her to her three conditions (disjunction, obligation, and concurrence), this criticism is particularly effective against her view. But it is something to

which all views of collective intention should be sensitive. If collective intentions explain collective actions, we have reason to prefer views that explain the features of collective action revealed by experimental research. Based on the empirical research so far, both of Gilbert's and Bratman's views have significant difficulties doing so. Bratman's has difficultly because our understanding of collective action appears to be normativist, Gilbert's because it gets the normative relations wrong. To explain collective action then, we need a new standard normativism.[43]

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APPENDIX, PART A: TABLES

Table 1. Predictions and results for *Togetherness Measure*, study 1.

	Control	Low Collective Action	High Collective Action	Promising
Control ($n = 58$, $mdn = 1$)	–	–	–	–
Low Collective Action ($n = 52$, $mdn = 2.5$)	Low Collective Action > Control	–	–	–
High Collective Action ($n = 50$, $mdn = 4$)	High Collective Action > Control	Not Significant ***High Collective Action > Low Collective Action***	–	–
Promising ($n = 54$, $mdn = 4$)	Promising > Control	Not Significant	Not Significant ***High Collective Action > Promising***	–

Notes. Table 1 collects our predictions for between-condition significant differences for our *Togetherness Measure* in Study 1. Where present, bold italicized notes summarize results that were *not* in agreement with our predictions.

Table 2. Pairwise Tests for Togetherness Measure, Study 1

	Control	Low Collective Action	High Collective Action	Promising
Control ($n = 58$, $mdn = 1$)	–	–	–	–
Low Collective Action ($n = 52$, $mdn = 2.5$)	$z = 2.806$, $p = 0.005$, $r = 0.268$	–	–	–
High Collective Action ($n = 50$, $mdn = 4$)	$z = 5.372$, $p < 0.001$, $r = 0.512$	$z = 2.98$, $p = 0.003$, $r = 0.295$	–	–
Promising ($n = 54$, $mdn = 4$)	$z = 3.781$, $p < 0.001$, $r = 0.357$	$z = 1.078$, $p = 0.281$, $r = 0.105$	$z = 2.004$, $p = 0.045$, $r = 0.197$	–

Notes. Table 2 collects the results of Mann–Whitney U pairwise tests conducted between conditions for our *Togetherness Measure* in Study 1. All z-scores are reported as absolute values.

Table 3. Predictions and Results for Permission Measure, Study 1

	Control	Low Collective Action	High Collective Action	Promising
Control ($n = 58$, $mdn = 0$)	–	–	–	–
Low Collective Action ($n = 52$, $mdn = 0$)	Low Collective Action > Control **Not Significant**	–	–	–
High Collective Action ($n = 50$, $mdn = 1$)	High Collective Action > Control **Not Significant**	Not Significant	–	–
Promising ($n = 54$, $mdn = 3$)	Promising > Control	Not Significant ***Promising > Low Collective Action***	Not Significant ***Promising > High Collective Action trending***	–

Notes. Table 3 collects our predictions for between-condition significant differences for our *Permission Measure* in Study 1. Where present, bold italicized notes summarize results that were *not* in agreement with our predictions.

Table 4. Pairwise Tests for Permission Measure, Study 1

	Control	Low Collective Action	High Collective Action	Promising
Control ($n = 58$, $mdn = 0$)	–	–	–	–
Low Collective Action ($n = 52$, $mdn = 0$)	$z = 0.535$, $p = 0.592$, $r = 0.051$	–	–	–
High Collective Action ($n = 50$, $mdn = 1$)	$z = 1.587$, $p = 0.112$, $r = 0.156$	$z = 1.038$, $p = 0.299$, $r = 0.103$	–	–
Promising ($n = 54$, $mdn = 3$)	$z = 3.158$, $p = 0.002$, $r = 0.298$	$z = 2.768$, $p = 0.006$, $r = 0.269$	$z = 1.919$, $p = 0.055$, $r = 0.188$	–

Notes. Table 4 collects the results of Mann–Whitney U pairwise tests conducted between conditions for our *Permission Measure* in Study 1. All z-scores are reported as absolute values.

Table 5. Predictions and Results for Togetherness Measure in Non-Simultaneous Cases, Study 2

	Notification First	Permission First	Notification Second	Permission Second
Notification First ($n = 37$, $mdn = 4$)	–	–	–	–
Permission First ($n = 31$, $mdn = 2$)	Notification First > Permission First	–	–	–
Notification Second ($n = 37$, $mdn = 4$)	Not Significant	Notification Second > Permission First	–	–
Permission Second ($n = 45$, $mdn = 4$)	Not Significant	Permission Second > Permission First	Not Significant	–

Notes. Table 5 collects our predictions for between-condition significant differences for our *Togetherness Measure* in Study 2. Comparisons against our Simultaneous condition are reserved for Tables 9 and 10.

Table 6. Pairwise Tests for Togetherness Measure in Non-Simultaneous Conditions, Study 2

	Notification First	Permission First	Notification Second	Permission Second
Notification First ($n = 37$, $mdn = 4$)	–	–	–	–
Permission First ($n = 31$, $mdn = 2$)	$z = 1.967$, $p = 0.049$, $r = 0.239$	–	–	–
Notification Second ($n = 37$, $mdn = 4$)	$z = 0.413$, $p = 0.68$, $r = 0.048$	$z = 2.349$, $p = 0.019$, $r = 0.285$	–	–
Permission Second ($n = 45$, $mdn = 4$)	$z = 0.467$, $p = 0.461$, $r = 0.052$	$z = 1.957$, $p = 0.05$, $r = 0.224$	$z = 0.878$, $p = 0.38$, $r = 0.097$	–

Notes. Table 6 collects the results of Mann–Whitney U pairwise tests conducted between conditions, except the Simultaneous condition, for our *Togetherness Measure* in Study 2. All z-scores are reported as absolute values.

Table 7. Predictions and Results for Normative Measures in Non-Simultaneous Cases, Study 2

	Notification First	Permission First	Notification Second	Permission Second
Notification First ($n = 37$, $mdn = 5$)	–	–	–	–
Permission First ($n = 31$, $mdn = 1$)	Notification First > Permission First	–	–	–
Notification Second ($n = 37$, $mdn = 5$)	Not Significant	Notification Second > Permission First	–	–
Permission Second ($n = 45$, $mdn = 1$)	Notification First > Permission Second	Not Significant	Notification Second > Permission First	–

Notes. Table 7 collects our predictions for between-condition significant differences for our two normative measures used in Study 2, i.e. our *Notification Measure* as presented in the Notification First and Notification Second conditions and our *Permission Measure* as presented in the Permission First and Permission Second conditions. Comparisons against our Simultaneous condition are reserved for Tables 9 and 10.

Table 8. Pairwise Tests for Normative Measures in Non-Simultaneous Cases, Study 2

	Notification First	Permission First	Notification Second	Permission Second
Notification First ($n = 37$, $mdn = 5$)	–	–	–	–
Permission First ($n = 31$, $mdn = 1$)	$z = 5.016$, $p < 0.001$, $r = 0.608$	–	–	–
Notification Second ($n = 37$, $mdn = 5$)	$z = 0.09$, $p = 0.928$, $r = 0.011$	$z = 4.631$, $p < 0.001$, $r = 0.562$	–	–
Permission Second ($n = 45$, $mdn = 1$)	$z = 5.428$, $p < 0.001$, $r = 0.599$	$z = 0.487$, $p = 0.627$, $r = 0.067$	$z = 5.145$, $p < 0.001$, $r = 0.568$	–

Notes. Table 7 collects the results of Mann–Whitney U pairwise tests conducted between conditions in Study 2, except the Simultaneous condition, for our two normative measures. Again, our *Notification Measure* was used in the Notification First and Notification Second conditions, and our *Permission Measure* was used in the Permission First and Permission Second conditions. All z-scores are reported as absolute values.

Table 9. Predictions and Results for Measures Against Simultaneous Condition, Study 2

		Condition 1: Notification First ($n = 37$)		Condition 2: Permission First ($n = 31$)		Condition 3: Notification Second ($n = 37$)		Condition 4: Permission Second ($n = 45$)	
		Notific. ($mdn = 5$)	*Together.* ($mdn = 4$)	*Permiss.* ($mdn = 1$)	*Together.* ($mdn = 2$)	*Notific.* ($mdn = 5$)	*Together.* ($mdn = 4$)	*Permiss.* ($mdn = 1$)	*Together.* ($mdn = 4$)
Condition 5: Simultaneous Presentation of Measures ($n = 42$)	Notification ($mdn = 5$)	*NS*	–	C_5 > C_2	–	*NS*	–	C_5 > C_4	–
	Permission ($mdn = 1$)	C_1 > C_5	–	*NS*	–	C_3 > C_5	–	*NS*	–
	Togetherness ($mdn = 4$)	–	C_1 > C_5 *NS*	–	C_5 > C_2	–	C_1 > C_5 *NS*	–	C_1 > C_5 *NS*

Notes. Table 9 collects our predictions for between-condition significant differences across all three measures against our Simultaneous condition. To facilitate clarity, each condition has been numbered. For each valid comparison (i.e. across condition ratings in our *Togetherness Measure* or across condition ratings for our two normative measures, *Notification* and *Permission*) our predictions are described via an inequality. Where no significant difference is predicted, we notated this with 'NS' for *Not Significant*. Results that differed from our prediction are listed in italicized notes underneath, where present.

Table 10. Pairwise Tests for Measures Against Simultaneous Condition, Study 2

		Condition 1: Notification First ($n = 37$)		Condition 2: Permission First ($n = 31$)		Condition 3: Notification Second ($n = 37$)		Condition 4: Permission Second ($n = 45$)	
		Notific. ($mdn = 5$)	*Together.* ($mdn = 4$)	*Permiss.* ($mdn = 1$)	*Together.* ($mdn = 2$)	*Notific.* ($mdn = 5$)	*Together.* ($mdn = 4$)	*Permiss.* ($mdn = 1$)	*Together.* ($mdn = 4$)
Condition 5: Simultaneous Presentation of Measures ($n = 42$)	Notification ($mdn = 5$)	$z = 0.476$, $p = 0.634$, $r = 0.054$	–	$z = 5.141$, $p < 0.001$, $r = 0.602$	–	$z = 0.302$, $p = 0.763$, $r = 0.034$	–	$z = 5.559$, $p < 0.001$, $r = 0.596$	–
	Permission ($mdn = 1$)	$z = 5.976$, $p < 0.001$, $r = 0.672$	–	$z = 0.536$, $p = 0.592$, $r = 0.063$	–	$z = 5.568$, $p < 0.001$, $r = 0.626$	–	$z = 0.013$, $p = 0.989$, $r = 0.001$	–
	Togetherness ($mdn = 4$)	–	$z = 0.173$, $p = 0.863$, $r = 0.019$	–	$z = 2.195$, $p = 0.028$, $r = 0.257$	–	$z = 0.589$, $p = 0.556$, $r = 0.007$	–	$z = 0.29$, $p = 0.772$, $r = 0.031$

Notes. Table 10 collects the results of Mann–Whitney U pairwise tests against our simultaneous condition. Z-scores are reported as absolute values.

Table 11. Comparison of Main Effects Across Studies

	Togetherness Measure	Normative Measure(s)
Study 1: *Featuring Permission Measure*, $n = 214$	$H(3) = 32.798\ p < 0.001$, $E^2_R = 0.154$	$H(3) = 13.004$, $p = 0.005$, $E^2_R = 0.061$
Study 2: *Conditions 1–4, Featuring both normative measures*, $n = 150$	$H(3) = 6.864\ p = 0.076$, $E^2_R = 0.046$	$H(3) = 51.97\ p < 0.001$, $E^2_R = 0.35$
Study 2: *Simultaneous Condition Comparison*, $n = 42$	–	$z = 5.042$, $p < 0.001$**

** Using a Wilcoxon signed rank test as data across the normative measures in the *Simultaneous Condition* in Study 2 are from paired samples.

Notes: Table 11 catalogues the 'main effects' obtained from our studies. For the first two non-header rows, Kruskal-Wallis independent samples tests were used and *p*-values are corrected for multiple comparisons. As our Simultaneous condition required comparing data from across the same participants, these data were excluded and were tested via a Wilcoxon signed rank test with that result described in the following row. For pairwise comparisons of participants' *Togetherness* scores across the *Simultaneous* and other conditions, consult Table 10. Epsilon-squared effect sizes for Kruskal-Wallis tests, E^2_R were obtained with the following formula:

$$E^2_R = \frac{H}{(n^2-1)/(n+1)}$$

APPENDIX: PART B

Study 1: Vignettes and Study-Specific Measures

Conditions

Control. Two people are independently walking down Fifth Avenue. Starting at 65th street, they walk beside each other, until, as it happens, one of them peels off at 59th street.

Low Collective Action. Two people are independently walking down Fifth Avenue. They spot each other at 65th street, and they briefly walk together, chatting, until, as it happens, one of them peels off at 59th street.

High Collective Action. Two people are independently walking down Fifth Avenue. They spot each other at 65th street, and they walk together, chatting, laughing and maintaining their pace, until, as it happens, one of them peels off at 59th street.

Promising. Two people are independently walking down Fifth Avenue. They spot each other at 65th street, and promise to walk together to 55th street, until, as it happens, one of them peels off at 59th street.

Dependent Measures

1. *Togetherness Measure:* 'To what extent were the two people acting together' anchored at 0 ('Not at all') and 6 ('Totally working together').
2. *Permission Measure*: 'Does the person who peels off have to seek permission to leave from the person who stays?' anchored at 0 ('Not at all') and 6 ('Totally').

On Following Page

3. Please give us a one sentence explanation of your prior answers. (Limited to 200 characters).

Study 2: Vignettes and Study-Specific Measures

Vignette

Low Collective Action. Two people are independently walking down Fifth Avenue. They spot each other at 65th street, and they briefly walk together, chatting, until, as it happens, one of them peels off at 59th street.

Dependent Measures

1. *Togetherness Measure:* 'To what extent were the two people acting together' anchored at 0 ('Not at all') and 6 ('Totally working together').
2. *Permission Measure*: 'Does the person who peels off have to seek permission to leave from the person who stays?' anchored at 0 ('Not at all') and 6 ('Totally').
3. *Notification Measure*: 'Should the person who peels off notify the other that they're leaving?' anchored at 0 ('No obligation at all to notify') and 6 ('Total obligation to notify').

On Following Page

4. Please give us a one sentence explanation of your prior answers. (Limited to 200 characters).

Conditions

1. Notification First. Participants first answered the *Notification Measure*, followed by the *Togetherness Measure* on a separate page.
2. Permission First. As above, with participants first answering the *Permission Measure*.
3. Participants first answered the *Togetherness Measure*, followed by the *Notification Measure* on a separate page.
4. Permission Second. As above, with participants answering the *Permission Measure* on a separate page.

5. Simultaneous Presentation. Here participants were asked to answer all three measures, randomly ordered, after reading the vignette.

Demographic Measures and Comprehension Checks
Notes. These questions followed the dependent measures for each of the previous studies. Demographic questions (Q1–Q4) were randomly presented with other questions on the following pages. Were there were multiple non-'Other/prefer not to answer' answers, they were randomly presented at the top of the list. Afterwards, participants were given a semi-unique code to enter into Amazon's Mechanical Turk platform to receive their payment.

Q1. Would you consider yourself religious?

0 = Yes
1 = No
2 = Other/prefer not to answer

Q2. Would you consider yourself female or male?

0 = Female
1 = Male
2 = Other/prefer not to answer

Q3. How would you describe your political affiliation?

0 = Republican
1 = Democrat
2 = Libertarian
3 = Socialist
4 = Other/prefer not to answer

Q4. How would you describe your political values?

Likert scale anchored at 0 ('liberal') to 6 ('conservative')

Comprehension Check:
Which avenue did the two people walk down?

1 Sixth Avenue
2 Park Avenue
3 Fifth Avenue
4 Don't remember

'Bot' Check:
Notes: Questions and answers were represented as bitmapped images. Answers were additionally randomized across participants.

Just to make sure you're not a bot, what day was it yesterday?

1. Sunday
2. Monday
3. Tuesday
4. Wednesday
5. Thursday
6. Friday
7. Saturday

Additionally, what day will it be tomorrow?

8. Sunday
9. Monday
10. Tuesday
11. Wednesday
12. Thursday
13. Friday
14. Saturday

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