

## Editorial Letter

Dear Julia Schnepf, Gerhard Reese, Susanne Bruckmüller, Maike Braun, Julia Rotzinger, and Sarah E. Martiny,

Thank you for submitting your Stage 1 manuscript, "Justice in the Eye of the Beholder: How Comparison Framing Affects the Perception of Global Inequality Through Social Emotions and Justice Sensitivity," to PCI RR.

I apologize for the delay in sending this decision. I have had two quality reviews in hand for some time, but had been awaiting a third. As that one did not appear to be forthcoming, I elected to make a decision based on the two reviews.

The reviewers and I were all in agreement that you are pursuing an important project, but that the Stage 1 manuscript would benefit from some revisions. Accordingly, I am asking that you revise and resubmit your Stage 1 proposal for further evaluation. Please note that I will review the revision myself, and will do it as quickly as possible to make up for the delay.

The reviewers provided thoughtful, detailed comments with which I fully agree, so I urge you to pay close attention to them as you prepare your revision. In my view, the most critical issues (raised all, or in part, by reviewers) are as follows:

1. Please be explicit about which analyses test each hypothesis. The hypotheses are numbered in the Introduction section, and this same numbering system should be carried through to the Analysis Plan section, aligning hypotheses with the corresponding tests.
2. Reviewer 2 raised an important point about data that suggest a potential competing hypothesis to the one you proposed. Testing this competing prediction against your own would strengthen the paper.
3. Both reviewers suggested that SDO should be a moderator rather than a control, based on arguments that I found compelling.
4. I agree with Reviewer 1 that some additional details regarding statistical power are needed.

When submitting a revision, please provide a cover letter detailing how you have addressed the reviewers' points. As noted, I will handle the revision myself

Thank you for submitting your work to PCI RR, and I look forward to receiving your revised manuscript.

Moin Syed  
PCI RR Recommender

## Author Response

Dear Dr. Syed,

Thank you very much for your invitation to revise and resubmit our manuscript entitled “Justice in the Eye of the Beholder: How Comparison Framing Affects the Perception of Global Inequality Through Social Emotions and Justice Sensitivity”.

We have thoroughly revised the manuscript in accordance with the points raised by the reviewers. More precisely, we coherently numbered the hypotheses, we have added post-hoc power analyses for the preliminary studies, and we have revised our hypotheses for the planned main study – especially with regard to our focal moderator Justice Sensitivity. We integrated the issues raised by Reviewer 1 who asked for more specific theorizing on this variable and the concerns of Reviewer 2 regarding the theoretical foundation of a counter-hypothesis. The deep theoretical work we have undertaken to clarify our hypotheses and counter-hypotheses regarding the moderating effect of Justice Sensitivity has led to one single deviation from the reviewers’ recommendations: Not to include SDO as an additional moderator. We will explain this decision in the corresponding section below.

In this response letter, we provide a detailed overview of how we implemented the respective criticism in the revision of our manuscript. Our responses are marked in bold.

We hope that our revision successfully addresses all of your and the reviewers’ concerns.

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### Reviewer 1

Reviewed by Mario Gollwitzer, 06 Feb 2022 17:34

There is much to like about this Registered Report: the research question (i.e., how global inequality is mentally represented and whether this representation affects legitimacy appraisals and action intentions) is interesting and timely, the report is very well-written, the preliminary studies reported here have shown promising results, and the proposed study makes sense and is described in sufficient detail. In particular, I appreciate the detailed methods and results sections and the fact that the pilot data are openly available.

At first, I was admittedly a bit skeptical about how robust "comparison framing" effects actually are, but after doing a bit of literature search (for recent findings on comparison framing effects; e.g., Inbar & Evers, 2021: <https://doi.org/10.1037/xge0000804>), I am convinced that these effects are robust and should be taken seriously.

I also learned that theorizing about the psychology of framing effects is pretty advanced by now, and I think that some of these conceptual advancements deserve to be mentioned in the present paper, too. The authors of the present report seem to rely their reasoning exclusively on salience or figure/ground effects (e.g., page 6).

An alternative interpretation is that perceivers draw inferences about a communicator's intentions (i.e., their "reference point") and values (e.g., McKenzie & Nelson, 2003: <https://doi.org/10.3758/BF03196520>; Sher & McKenzie, 2006: <https://doi.org/10.1016/j.cognition.2005.11.001>). Applied to the present research, this "information leakage" approach would explain the framing effects obtained in the two pilot

studies more in terms of an implicit demand characteristic (such as "the researchers think that the fact that 'developing countries have a smaller share of global wealth' is problematic and that somebody should do something about it"). I would be interested to hear the authors' opinion on whether they think "information leakage" and the implicit demand it creates may be relevant for their own research. I don't think it is necessary to re-design their proposed study in order to test the "information leakage" account against a simple salience account -- but I think the authors may want to discuss "information leakage," the "reference-point hypothesis by McKenzie, and implicit demand as a potential alternative explanation in their General Discussion (if they share my impression that these issues are relevant here).

**We thank Reviewer 1 for his positive general evaluation of the manuscript and for acknowledging the robustness of comparison effects.**

**We thank Reviewer 1 for pointing us to the "information leakage" literature. We do think that this literature is relevant and thus now discuss it in the revised manuscript. Importantly, however, we do not see information leakage and salience/ figure ground effects as contrasting or alternative explanations in the context of our study but rather, as related and complementary processes. At their core, both of these processes revolve around negative (here: disadvantage) versus positive (advantage) elements featuring more prominently in people's considerations of and decisions about a topic (here: inequality), be it because these elements are cognitively more easily available, because people assume that this is what a communicator is most interested in, or both these processes going hand-in-hand. While it may be an interesting – albeit challenging – endeavor for psycholinguists to disentangle these two processes, for our research question what matters is that both lead to exactly the same predictions. In the manuscript, we now write the following (p. 6-7):**

**"In addition to this salience-based explanation of comparative framing effects, Sher and McKenzie (2006) argue that comparative framing determines what the reference point of a comparison is, i.e., whether something is perceived as having increased or decreased in relation to a certain reference point. For example, participants chose more frequently a full glass as reference point when asked to prepare a "half empty" glass of water but chose a previously empty glass as reference point to prepare a "half full" glass (Sher & McKenzie, 2006, Study 1-3). For valenced framing situations, Sher and McKenzie (2006, p. 487) claimed that "choice-relevant information is leaked from the experimenter's choice of frame, and this information leakage may account for that literature's most robust finding—valence-consistent shifts in preference." Accordingly, comparative framing leaks information, which is the normatively desirable state. Applying this to the context of inequality, this would mean that because it is more desirable to have more of a good than less of it, statements about inequality should be perceived as less serious if the privileged group is the focus of the statement compared to the disadvantaged group.**

**In sum, both a salience-based and an information-leakage account of comparative framing effects in contexts of inequality center around the notion that a focus on disadvantages leads to the situation being perceived more negatively than a focus on advantages. Accordingly, we hypothesize that global inequality is perceived as less legitimate when it is presented with a focus of low-income countries, i.e., poor countries having less than rich countries, compared to a focus on high-income countries, i.e., rich countries having more than poor countries (Hypothesis 1). In addition, and in line with previous findings (Bruckmüller et al., 2017; Lowery et al., 2007), we argue that people's**

perception of the size of the economic inequality moderates the effect of linguistic framing. This expectation is also in line with the assumptions of prospect theory (e.g., Tversky & Kahneman, 1981, 1992), which postulates a value function with similar value perceptions of small gains and losses, but higher value discrepancies for large gains and losses. Small amounts of global inequality may be considered insignificant by participants regardless of the framing. However, the contrast between the two framings may be most pronounced when the economic inequality is perceived as large (indicating a higher distance on the sigmoid value function). Thus, we hypothesize that the effect of framing will become stronger when the presented economic inequality is perceived to be large versus small (Hypothesis 2).”

Besides this conceptual issue, I only have a couple minor (methodological) issues, which can easily be resolved in a revision:

- (1) SDO as a covariate: On page 9, the authors write: "we propose that SDO is a relevant personal-level control variable that needs to be included when investigating framing effects on the perceived legitimacy of global inequality and individual action intentions." I wondered whether SDO could also be regarded a viable moderator variable: SDO has been conceptualized as a (dispositional) preference for inequality among social groups, so one could argue that people low in SDO should be more susceptible to a framing manipulation than people high in SDO (whose dispositional preference should have a stronger impact on their attitudes than contextual variations). Maybe the authors could discuss the plausibility of this reasoning in their paper and also test whether SDO moderated the effect of framing in the pilot studies.

**We thank both, Reviewer 1 and 2 for this important feedback.**

**Both Reviewers 1 and 2 raise an interesting point here. We agree that SDO is an important variable in contexts of inequality, which is why we include it as an individual-level control variable. However, we decided not to include it as a moderator based on previous research on the culture- and context-specificity of SDO (Cohrs & Stelzl, 2010), its wide variation in internal consistency between countries (Araujo et al., 2020), it's dependency on country-level changes in inequality (Kunst et al., 2017), as well as our own experiences with SDO as a potential moderator in other research on inequality in Germany. In sum, our impression is that SDO is an important moderating variable in contexts with very high or very low inequality (inverse U-shaped relationship), where people are acutely aware of inequality or of strong societal equality norms, respectively. In contexts of "medium" inequality (such as in Germany), it may be less salient as a social issue and thus respondents might not report answers on the whole range of the scale.**

**For this reason, we have decided to not investigate SDO has a potential moderator further. but think that Justice Sensitivity is much better moderator to test in our planned third study, as it is much more related to the specific information processing mechanism which are important for the effectiveness of linguistic framing. Also, the different dimensions of Justice Sensitivity (observer, beneficiary, and perpetrator) allow us to cover the respective perspectives respondents can have for the judgement of inequality.**

Also, related to this, I would like to see whether the pattern of results reported here changes when SDO is not included as a covariate into the models.

**We also thank Reviewer 1 for this feedback. We have indeed tested all models with and without SDO as a covariate with the result that the findings in the pilot studies are less coherent when SDO is excluded from the analyses. To be more transparent, we added these findings in our revised supplement and in an in-text reference to the results without SDO (p. 13):**

**“For a robustness check, we also performed all analyses without SDO as a covariate. However, the results varied and showed a higher inconsistency when excluding SDO from the analyses (see Tables 3s – 14s of the supplemental material). Therefore, we kept it as an important individual-level control variable.”**

- (2) Sample characteristics: As the authors discuss explicitly on page 26, the two pilot studies rely on student samples and are not representative of the general population in many respects (age, gender distribution, education level, probably also political attitudes). This is why I think a nationally representative study is actually warranted. I was a bit surprised that the authors think that "...this can be interpreted as an especially strong test of inequality-related framing effects" (p. 26), because it is possible that the framing effects are much smaller in a politically more diverse sample (especially when we assume that political attitudes covary with demand susceptibility, see the "information leakage" argument discussed above). Maybe the authors can clarify this?

**As outlined earlier, we think that the information leakage account is not contrasting but rather complementary to the salience-based framing approach. While this is a rather minor point in the manuscript, our main reasoning behind the expectation that effects may be weaker among a student sample is that students often share a rather strong equality norm and more leftist attitudes, leaving less room for a framing manipulation to affect attitudes in this context. However, since this is not an important point in the manuscript, we decided to cut the respective half-sentence in the revised version.**

- (3) Power analyses: I missed a discussion of statistical power in the two pilot studies -- maybe the authors could at least report a sensitivity power analysis when they describe their samples. Later, when they determine the necessary sample size for the proposed study, they write that "...the size of the significant paths in our moderated mediations models of the pilot studies lay between .18 and .75" (p. 38). I could not find these estimates in the Results sections of the two pilot studies. I may have missed that, but if not, these estimates should be added to the results. Also, effect size estimates for the framing x perceived size interaction effects (i.e., the increase in R-square by adding the interaction term to the regression) should be explicitly reported.

**We added post-hoc power analyses for the pilot studies in the revised version of the manuscript (p. 13, p. 19):**

**“Post hoc power analyses were performed with G\*Power (Faul et al., 2009) for the estimation of achieved power in  $R^2$  increase in linear multiple regression models. They confirmed satisfactory power for the computed moderation models, with noncentrality parameter  $\lambda = 26.23$ ,  $F(1, 94) = 6.14$ ,  $1-\beta = 0.99$  for the prediction of perceived legitimacy, and noncentrality parameter  $\lambda = 42.97$ ,  $F(1, 94) = 4.74$ ,  $1-\beta = 1.00$  for the prediction of action intentions.”**

**“Again, post hoc power analyses (with G\*Power, Faul et al., 2009) confirmed a sufficient statistical power for the moderation models, with noncentrality parameter  $\lambda = 37.23$ ,  $F(4, 174) = 2.42$ ,  $1-\beta = 1.00$  for the prediction of perceived legitimacy, and noncentrality parameter  $\lambda = 41.89$ ,  $F(4, 174) = 2.42$ ,  $1-\beta = 1.00$  for the prediction of action intentions.”**

(4) Simple effects: Even though the framing x perceived size interaction effects are significant in both pilot studies, I would like to see tests for simple effects (or "conditional effects") to back up claims such as "Participants who perceived the economic inequality between low and high-income countries to be large were more strongly affected by the less (versus more) frame than participants who perceived the inequality to be small" (p. 16) or "stronger emotional reactions for participants who perceived the size of inequality to be large and were presented with the less (versus more) frame" (p. 17). As far as I can see, only conditional \*indirect effects\* are tested (see Table 8). By the way, looking at the conditional indirect effects in Table 8, it seems that the indirect effects among people high in PSI (perceived size of inequality) are not significant in Study 2. This needs to be mentioned and discussed in the text.

**The conditional effects are reported in Tables 2 & 3 for Study 1 and Tables 4 & 5 for Study 2, as well as in the reported contrasts of indirect effects in the moderated mediation models (p. 16, 21).**

(5) Preregistered "Main" Study: As noted already, I do like the proposed study and I think it is necessary to make the paper sufficiently strong and convincing. Also, I do like the inclusion of Justice Sensitivity (JS) as a potential moderator variable. That said, I wondered why (a) all "other-oriented" JS perspectives will be aggregated into one score, (b) victim sensitivity will not be measured, and (c) the authors are so cautious regarding the potential moderator effects of JS. Let me quickly explain each of these three issues:

(a) It is likely that people high in beneficiary sensitivity will react more strongly towards a "more-than" frame than towards a "less-than" frame (given that German respondents are likely to identify with a "developed" or economically privileged country), but this should not be the case for observer- or perpetrator-sensitive people. Therefore, I would analyze the JS perspectives separately instead of aggregating across them.

**We have now outlined our hypotheses regarding the different perspectives on justice sensitivity in more detailed. Also, with regard to Reviewer 2's comments, we have now taken into account that the different Justice Sensitivity perspectives may also cover different identities when making judgements on global inequality. People may see them rather as external and uninvolved observers or as undeserved beneficiaries or even as unwillingly being responsible for global inequality and thus being a perpetrator.**

**As different theoretical approaches would predict different interactions between the different Justice Sensitivity perspectives and the framing of global inequality, we have decided to formulate a general set of moderation hypotheses a set of related counter hypotheses. We will outline these specific hypotheses below.**

(b) Even though it is likely that victim-sensitive individuals react less sensitively to framing manipulation than victim-insensitive individuals, being able to empirically demonstrate such an interaction may be worthwhile. Therefore, I suggest including the victim sensitivity subscale into the study.

**We thank Reviewer 1 for this feedback. While we generally agree that victim sensitivity is an interesting variable, we do not think that it makes much sense in the context of the present study. We will collect data only with members of the advantaged group (Germans), so participants perceiving themselves as victims of their country being comparatively rich (or other countries in the world being poorer) does not make much sense. Of course, some people in Germany see themselves as victims of globalization, however, this refers to being disadvantaged (a victim) within their own country, that is, in comparison to other Germans but not in comparison to people in much poorer countries. The latter is, however, the comparative context in the present study.**

(c) The authors write that "the role of justice sensitivity in framing research is still largely unclear, we investigate the moderating effect of this variable in an exploratory fashion" (p. 29). This is okay, but there are certainly interaction patterns including JS that are more plausible than others. For instance, I would expect that all three "other-oriented" JS perspectives should amplify (i.e., positively moderate) an effect of inequality size (i.e., 2-way interactions). Also, since framing effects appear to be driven more strongly by a "less-than" frame compared to a "more-than" frame (Inbar & Evers, 2021), JS should predict legitimacy appraisals and action tendencies more strongly in a "less-than" frame than in a "more-than" frame. I know that some effects are harder to predict, but at least the most plausible ones could and should be formulated as hypotheses here.

**We thank Reviewer 1 for this important comment. It has helped us to improve our theorizing about the moderating role of Justice Sensitivity.**

**First, it seemed surprising that Reviewer 1 claimed a slightly different moderating effect of Justice Sensitivity in point a) than in point c). However, this inspired us to formulate more specific and competing hypotheses. We agree with Reviewer 1's point that the different Justice Sensitivity perspectives can elicit different reactions to the manipulated frames.**

**More precisely, we now argue that Justice Sensitivity could plausibly work in two different ways, depending on how this variable affects the way people process inequality-related information (p. 29-32).**

**One approach (Hypotheses 4a–c) would be to interpret high scores on the other-related perspectives of Justice Sensitivity as reflecting a high perceived relevance of the topic of global inequality compared to those with low scores on these variables who should not be especially concerned about global inequality. From the perspective of the Heuristic-**

**Systematic-Model (Chaiken, 1980, 1987; Eagly & Chaiken, 1993), it is plausible that people who see a certain topic as highly (personally) relevant will process related information rather systematic and deep, and will try to form accurate attitudes towards this topic. In contrast, people who are not so much involved in a topic are expected to process information in a biased fashion and are influenced by superficial, heuristic cues (such as source credibility, audience reactions, or semantic frames). Following this rationale, one set of hypotheses states that participants with high scores on the other-related Justice Sensitivity facets will not be affected by the framing of global inequality, whereas participants with low scores on these variables will be affected by the framing.**

**A concurring set of hypotheses additionally takes into account how the different perspectives of Justice Sensitivity might interact with the respective perspective on global inequality, which is expressed by the competing frames (i.e., disadvantaged group or privileged group). This set of hypotheses (Hypotheses 5a–c) is based on the motivated information processing approach (De Dreu et al., 2008; Klayman, 1995; Knobloch-Westerwick et al., 2020; Krosnick & Petty, 1995) which states that people process information in a belief-consistent fashion, i.e., by searching information which is in line with pre-existing attitudes, beliefs, or identifications. In this vein, the three different perspectives of Justice Sensitivity can be assumed to cover different forms of identities – either as uninvolved, external observer, or as a clearly privileged individual, i.e., beneficiary or perpetrator. Thus, participants with high scores on the beneficiary and perpetrator dimension may react more positively on global inequality information when it is framed as in-group advantage, as this might echo their tendency to identify situations in which they get undeserved benefits or are unwillingly causing the suffering of others. In contrast, people with a high observer sensitivity might be prompted more strongly by the out-group disadvantage framing, as this might trigger their empathy with people from the global south more strongly than focusing on the advantaged group with which they might not identify (as possible seeing themselves as uninvolved and not responsible).**

**We have outlined the changes we made more thoroughly in our answer to Reviewer 2 (below).**

One minor issue: The authors refer to Schmitt et al. (2005) for the JS scales they want to use. I suggest they refer to the more recent version (Schmitt et al., 2010: <https://doi.org/10.1007/s11211-010-0115-2>). The German version of the scales can be found here: <https://www.uni-landau.de/schmittmanfred/forschung/sbi/index.html>.

**We thank Reviewer 1 for this additional advice and we now plan to use the more recent version and have revised the reference accordingly.**

**Also, to be able to test the specific Justice Sensitivity profiles, i.e., whether a person reports higher scores on one of the three dimensions, we added information of how our moderator will be calculated to be able to test Hypotheses 5a–c:**

**“Justice Sensitivity, our moderator, will also be assessed at the first measurement time. The three different other-related dimensions of Justice Sensitivity, i.e., observer, beneficiary, and perpetrator sensitivity will be measured with the German version of the Justice Sensitivity Scale developed by Schmitt et al. (2010; consisting of 10 items respectively, e.g.,**



**“I am upset when someone is being treated worse than others”/ “I feel guilty when I am undeservedly better off than others”/ “It bothers me when I use tricks to get things that others have to struggle for”, ranging from 1 = *totally disagree* to 6 = *totally agree*). To be able to adequately test Hypotheses 5a to c, we will determine on which dimension of justice sensitivity the participant reports the highest scores. Thus, we will calculate the respective differences between the subscales, e.g., MEAN (observer sensitivity) – MEAN (beneficiary sensitivity, perpetrator sensitivity) covering a respondent’s relative identification as an observer compared to a beneficiary or perpetrator, or MEAN (beneficiary sensitivity) – MEAN (observer sensitivity, perpetrator sensitivity) to measure the identification as a beneficiary and so on.” (p. 32-33)**

**Reviewer 2**

I enjoyed reading this Stage 1 RR! The topic of global inequality is absolutely important and timely, and I am glad researchers are investigating ways of addressing inequality between countries. I do believe the research questions make sense considering the literature, but the hypotheses were surprising given the literature on inequality framing.

**We thank Reviewer 2 for their positive general evaluation of our manuscript.**

I was surprised to not read theory and research on when and why people focus on advantaged versus disadvantaged in framing (inequality framing) as opposed to comparison framing overall. For example, there is work on the “half-blindness of privilege” (Pratto & Stewart, 2012), suggesting that people mask the privilege of advantaged groups by focusing on the disadvantaged. In other words, advantaged groups are seen as the default and people like to discuss how groups are disadvantaged instead of how groups are advantaged.

Indeed, for some groups, framing inequality as privilege versus disadvantage can lead to heightened threat (Lowery et al., 2007) and they are motivated to deny, distance, but also dismantle when that threat happens (Knowles et al., 2014). From that perspective, we might expect the opposite result suggested here, that people would be more inclined to address inequality when it is focused on how much advantage certain groups have. Some research has even shown that (Chow & Galak, 2012; Iyer et al., 2003; Lowery et al., 2012)!

The authors even cite these papers to support the importance of comparison framing but don't grapple with the fact that these papers find the exact opposite pattern they are proposing here. Given the two preliminary studies, this paper is poised to help elucidate why sometimes disadvantage framing works and sometimes it doesn't work. I would like to see some theorizing about it and perhaps include a variable that can capture this dimension. The fact that hypothesis 1 wasn't supported in either preliminary studies could be because for some participants the framing leads to more support and for other participants the disadvantage framing leads to less support.

I am not well versed in literature that is not United-States centered, so apologies that my reference examples are US-centric. I would be surprised if there wasn't similar research in other contexts though!

**We thank Reviewer 2 for enriching our theorizing with these very important thoughts.**

**We decided to include the proposed mechanisms in the clarification of our moderation hypotheses. We think that Reviewer 2 implicitly addresses the role of participants' own identification for their reaction of differently framed information on social inequalities. Depending on whether a person belongs to the advantaged or disadvantaged group, they might feel addressed as potential “givers” or “benefactors” if the focus is set on the advantaged in-group instead of the disadvantaged out-group (e.g., Chow & Galak, 2012). Whereas directing readers' attention to the in-group's advantage can even elicit feelings of threat (e.g., Lowery et al., 2007).**

Identification with either the advantaged or disadvantaged group in contexts of inequality undoubtedly plays an important role. However, the context of global inequality is a very unique one, because the intergroup context is very diffuse (i.e., being a member of the advantaged might sometimes not salient as in other intergroup contexts).

People from richer countries can either see themselves as rather uninvolved, external observers who are not responsible for the situation of people from the global south. Or they can see themselves as being undeserved beneficiaries of the situation or even being unwillingly responsible (and thus perpetrating). Justice Sensitivity, our central moderator, fully covers these different perspectives on inequality which might play an important role in the context of global inequality. Inspired by Reviewer 2's comments, we have revised our moderation hypotheses in the direction that we will test how the different perspectives of Justice Sensitivity interact with the specific framing of inequality. As outlined earlier, combined with the motivated reasoning approach (De Dreu et al., 2008; Klayman, 1995; Knobloch-Westerwick et al., 2020; Krosnick & Petty, 1995), we expect in Hypothesis set 5 that the three different perspectives of Justice Sensitivity cover different forms of identities – either as uninvolved, external observers, or as a clearly privileged individuals, i.e., beneficiaries or perpetrators. When participants have a strong observer profile, i.e., showing higher scores on this dimension compared to the other two dimensions, this can be expected to make them more susceptible to the disadvantage focus compared to the advantaged focus, as their own perspective on inequality might be rather fluid and thus their identification with people from the global south may be easily triggered by the framing of global inequality. In contrast, participants with high scores on the beneficiary and perpetrator dimension may react more positively on global inequality information when it is framed as in-group advantage, as this might more strongly echo their tendency to identify situations in which they get undeserved benefits or are unwillingly causing the suffering of others. In addition, it also confirms their self-identification as advantaged individuals and thus emphasizes their role as potential “givers” or “care-takers”.

We think that by this integration of different theoretical perspectives and by our aim to test competing hypotheses regarding the moderating role of justice sensitivity, we have helped to interpret the heterogeneous results which have been previously found in the (mostly, but not exclusively) US-centric literature on inequality framing.

We have made substantive changes in our manuscript on pages 7-8 and especially pages 25-30.

Another thing I would love to see the authors grapple with is the level of the dynamic. Should we expect comparison framing to work in the same way for individuals (the research that is currently being used to support the framing hypothesis) as it does for groups? Is there a difference when the comparative framing is on the level of countries compared to groups within a country? The authors note that “global inequality is a rather abstract form of inequality”, suggesting that global inequality shouldn't be perceived similarly as forms of inequality like racism and sexism. If that is true, how would we expect the comparison framing to impact abstract forms of inequality? That could also be the moderating variable that distinguishes when disadvantaged framing leads to more or less interest in redistribution.

We thank Reviewer 2 for this criticism. We have now outlined in more detail how our focal moderator, Justice Sensitivity, is expected to shape individual's perspectives on global

**inequality and why global inequality is different when compared to other contexts of inequality where group memberships are much more salient (such as gender or race):**

**“Compared to other forms of discrimination and inequality such as gender inequality or racism, global inequality is a unique intergroup context in which one’s own role is somewhat ambiguous. Depending on which attribution people have in mind to explain global inequality, they will either find themselves in the role of an external observer of global inequality, as a beneficiary of the unequal situation or as a perpetrator who is (at least partly) responsible for the relative disadvantage of residents of the global south.” (p. 26). Also see the revisions made on p. 26 – 28 regarding the formulation of our different moderation hypotheses.**

I think the point of level also matters because of the use of justice motives as the relevant moderator. I expected SDO to be the moderator and not just simply controlled for because it is related to recognition of inequality (Kteily et al., 2017; Kteily & Richeson, 2016). The same logic the authors used for including Justice sensitivity as a moderator is very similar to why I would use SDO as a moderator, and they can test SDO as a moderator already because they have measured it multiple times. Justice sensitivity, however, is on the level of the individual and not about groups and group dynamics (like SDO is).

**See above for our rationale on why we do not want to include SDO as a moderator.**

Finally, I was surprised that the social emotions (as a mediator) didn’t include the action-oriented emotions like collective outrage and anger as outlined in the introduction. Especially in the case of collective action on behalf of a marginalized group, anger in conjunction with sympathy/empathy are particularly important. For example, anger can be a more potent motivator of political action than guilt (Leach et al., 2006). The authors cite this paper, but don’t use it to motivate which emotions they selected as mediators. Instead of measuring what is effectively group gloating/superiority/schadenfreude (superiority and pride), I encourage the authors to include action-oriented emotions in their main study.

**Again, we thank Reviewer 2 for this important feedback!**

**We have added anger and outrage as two further emotions in our social emotions measure for the third study.**

**“*Mediator.* After the experimental treatment at the second measurement time, participants will be asked to state how they feel about the situation described in the text. As in both preliminary studies negative social emotions were more predictive than positive social emotions, we will focus on the other-oriented and self-reflexive, negative emotions as drivers of perceived illegitimacy of the situation and action intentions. Thus, we use the same measures of guilt, compassion, pity, and shame (Harth et al., 2008) as in the preliminary studies, but also add two further emotions, namely outrage and anger (adapted from Leach et al. 2006, p. 1236). Participants will be asked to answer the following items: “If I think about the differences between industrial countries and developing countries, I feel guilty, compassionate, pity, ashamed, outraged, angry” (emotions will be presented in a randomized order; answers ranging from 1 = *totally disagree* to 7 = *totally agree*).” (p. 33)**

One small point: SDO should be measured as either an 8 or a 16-item scale, as it was designed to have equal numbers of con-trait and pro-trait, as well as anti-egalitarian and dominance subscale components.

**We have changed the respective measure and have clarified the previous deviation from the original SDO scale.**

**“Covariate. SDO will be in this study measured with the larger German 16-item version by Cohrs et al. (2005, adapted from Pratto, 1994; e.g., “Some groups of people are simply inferior to other groups.”; ranging from 1 = *totally disagree* to 6 = *totally agree*).” (p. 33)**

**We think that the changes we made based on the reviewers’ suggestions clearly improved our manuscript. We thank both Reviewers for their valuable feedback and hope that the present version of the registered report is convincing for publication in PCI RR.**

**On behalf of all authors,  
Yours sincerely,**

**Julia Schnepf**

## References

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