

**Role of Collective Guilt in Majority Group Members' Response to Social Change**

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Thesis

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### **Abstract**

Faced with social change, majority group members feel threatened and resist change with the desire for a stable society. This paper explores the effect of a collective feeling as opposed to individual feelings, collective guilt, and further investigates implications for supporting social change in white men. The results suggest that when white men are asked to think about their privileges, they feel increased negative emotions. Contrary to previous findings, white men feel negative emotions about a stable society. Heart rate measures, being an indication of attentional and emotional engagement, showed considering one's privileges and subsequently reading about how society is changing in terms of the position of minority groups lead to higher engagement in white men. Mediation analysis has shown that collective guilt is not predicted by privilege listing as previously suggested and it does not mediate the relationship between privilege listing and negative emotions. Rather, it predicts negative emotions and, according to literature, these emotions can indicate the motivation for action.

### **Introduction**

Societies today are undergoing rapid change due to factors such as migration and changing gender roles. Now more people categorize themselves with their gender identity rather than the sex assigned at birth, and as a result, many website registration pages now include more than two choices for gender (Katz & Luckinbill, 2017). There are some improvements that, though valuable, are not enough because minority groups are still getting short ended in some major areas. Activist movements follow as a result of the mistreatment minorities face. Black Lives Matter protests worldwide following George Floyd's murder due to the excessive police force, and Stop Asian Hate protests following the racially charged Atlanta shooting in the US could be examples. The current study is interested in how white men respond to the changes in society.

When faced with the need for culture change, majority group members feel threatened and their desire for the minority group members to adopt the majority group's culture is increased (Moftizadeh et al., 2021). There are other personal negative emotions felt by majority group members that are triggered by feelings of threat on the subject of change. One study found that when majority group members perceive their in-group privileges as deserved they experience more threat on the subject of social change and this leads to anger and fear towards minorities (Outten et al., 2018).

In order to avoid these negative emotions, majority group members can be more inclined to resist change. Resisting social change can be linked to the desire to protect the current societal processes (Brandt & Reyna, 2017). For example, for political conservatives, resisting change stems from a tendency to keep society stable in an effort to keep its predictability (Jost et al., 2003). These efforts protect majority group members who resist change by creating a society that is stable and does not pose an immediate threat. However, the desire to protect the current societal processes results in harm for minorities, because the current situation is not exactly equal. Additionally, while increased intergroup relations result in positive attitudes for social change in majority group members (Hässler et al., 2020), for minority group members increased contact can predict less action to support social change because as contact increases minority group members perceive the majority group members as fairer and trust that change will happen without their efforts (Saguy et al., 2009).

Perhaps, more focus on the collective feelings can help understand these reactions better, specifically, collective guilt. In 2012, a study by Imhoff and colleagues found that collective guilt leads to the desire to make reparations for disadvantaged groups. It is an important aspect of majority-minority relations that include a history of wrongful treatment toward the minority. It was discovered that in comparison to being reminded of the outgroup's disadvantage, the ingroup's advantage makes people feel more collective guilt

(Powell et al., 2005). Therefore acceptance of one's group's privileges may be an important first step towards support for change. The current study is interested in how collective guilt, acknowledging privileges and response to social change interact.

### **Collective Guilt**

Collective guilt is a term for an emotional reaction that is caused by previous wrongdoings of one's own group towards other groups (Wohl et al., 2006). It has been researched during and after significant majority-minority conflicts in history such as the treatment of people of colour in the US, and indigenous people of Australia.

Feelings of collective guilt were found to be intensified when the oppressor group sees the relationship between the two groups as illegitimate (Miron et al., 2006). This means that majority group members feel greater collective guilt when they are aware that people in the other group have no differences from them in terms of ability or intelligence and that the harm done to the other group was due to discriminatory reasons.

This emotional reaction has its own implications for intentions to make it up to the other group. For instance, participants who reported high collective guilt for the treatment of Indigenous Australians showed greater support for reparations (Halloran, 2006). It seems that the first step towards rehabilitation is acknowledgement and feelings of guilt as a group. This shows that previous research has drawn a link between the experience of collective guilt and the intentions to repair such feelings through prosocial behaviours. Similarly, the effect of collective guilt was found to be a mediator between beliefs about and actions against climate change (Ferguson & Branscombe, 2010). Again, this shows that the experience of collective guilt can lead to increased support for those who have been harmed. Therefore, it is important to investigate the feelings of collective guilt in order to move on to the next step where people feel responsible to contribute to change.

Furthermore, a study investigated White people's support for Black programs. White people who watched a civil-rights video (to induce collective guilt emotions) and later completed a task of self-affirmation showed more support compared to White people who completed a filler task after watching the video (Harvey & Oswald, 2006). This study distinguished between shame and collective guilt with the self-affirmation task. The argument was that unless the participants were given the opportunity to self-affirm then they could be feeling shame, a personal feeling, rather than collective guilt (Harvey & Oswald, 2006).

We can conclude that when majority group members are aware that the harm done to minorities was not caused by individual differences but rather is a systemic issue, and they acknowledge their group as responsible they feel greater collective guilt and this can lead to helping.

### **Heart Rate**

In order to gain a more complete picture of the responses of white men towards change, heart rate measures will be used in this study as an addition to negative emotions. Heart rate measures can give physiological clues showing how engaged, attentionally and emotionally involved, people are when they are on a task (Monkaresi et al., 2017), in this case about supporting social change. Heart rate measures will be collected via a procedure called remote photoplethysmography (rPPG) during which a video camera is used to assess cardiac activity. Photoplethysmography is a technique where light changes observed due to blood moving under the skin yields heart rate measures (Lewandowska et al., 2011). While this technique is conducted with a camera, rPPG can also be conducted remotely with a webcam. rPPG is proven to be just as reliable as traditional ways of measuring heart rate and recommended as a non-invasive option (Madan et al., 2017). This non-invasive procedure is especially useful in the current times where no contact methods are preferred due to the Covid-19 pandemic. rPPG is proven to be just as reliable with a low-cost webcam (Bousefsaf

et al., 2014) especially when directed on one's face compared to other parts of the body such as wrists (van der Kooij & Naber, 2019).

### **Current Study**

In the current study, the aim is to use novel methods to investigate majority group members' engagement and emotions on the topic of social change when their privilege is made salient versus when it is not. Privilege listing is expected to increase negative emotions felt by participants (Arnett & Sidanius, 2018). To see the reactions of white men through measures of heart rate and negative emotions, they will read either a text framing change or another text framing stability in society. Additionally, this study examines the central role of collective guilt. We expect majority group members to experience higher collective guilt after thinking about and listing their privileges. We expect that privileges, when made salient, will make participants experience negative emotions and this effect will be mediated by collective guilt.

### **Hypotheses**

1. Participants in the privilege listing condition are expected to report more negative emotions compared to the participants in the control group.
  - a. These participants are also expected to have a higher heart rate.
2. Participants in the social change group are expected to report fewer negative emotions than the participants in the social stability group over time.
  - a. These participants are also expected to have a lower heart rate.
3. Participants in the privilege listing condition are expected to report a stronger decrease in negative emotions over time after reading about social change compared to reading about social stability.
  - a. These participants are also expected to have a lower heart rate compared to the participants in other groups.

4. Participants in the privilege listing condition are expected to report more negative emotions compared to the ones in the control group which is mediated by collective guilt.

## **Methods**

### **Participants**

Two hundred and twenty white male participants were recruited through Prolific and compensated for their time with four pounds. Using G\* Power, the sample size was estimated at N=116 for an effect size of .80 in a repeated measures ANOVA (Erdfelder et al., 1996). Through Prolific we recruited white men and ensured that participants would be equipped with a webcam and willing to use it during the study. The participants were distributed equally across the four conditions. After the exclusion of one self-reported female participant, the sample size reduced to N=219. The mean age of our sample was 41.89 ( $SD= 14.84$ ) ranging between 18-58. In terms of occupation, 56.8% of our participants were employed full-time, while 9.5% were retired, 9.5% were students, 9.1% were self-employed, 8.2% were employed part-time, 3.8% were unemployed, and 2.3% were unable to work. Looking at the level of education, the majority of our sample had bachelor's degrees (47.3%) followed by high school graduates (22.7%), master's graduates (15%), vocational degree holders (9.5%), doctoral degree holders (2.7%), those who received lower education (1.4%) and other (0.9%). The socio-economic status of our participants, which we gathered with the use of the Macarthur Scale of Subjective Social Status (Adler & Stewart, 2007) showed an average of 5.74 ( $SD= 1.60$ ) on a 10-point measure, indicating that participants on average scored around the mean of the scale. The political orientation of our participants was slightly more liberal with an average of 4.36 ( $SD= 1.62$ ) on a 7 point scale.

### **Design**

This study has a 2 (privilege listing vs control) x2 (social change vs stability) repeated measures design with emotions and heart rate measures at two and three time points respectively.

### **Procedure**

After signing informed consent, the first step in the study was gathering demographic information about the participants (gender, ethnicity, age, level of education, and political orientation). After this, the baseline heart rate measures were measured. For this purpose, participants were shown the correct positions to sit and were instructed to turn on their webcams and talk about their most recent vacation (time point 1 for heart rate). Once these steps were completed, participants were randomly divided into two groups. One group was assigned to think about and list five of their privileges (privilege listing condition); the other group was assigned to a task that asked them to think about their life experiences and list five significant ones (control condition). Once this task was completed, participants gave reports on their emotions (time point 1 for emotions). Subsequently, they moved on to the webcam task during which they talked about the privileges or life events they had written in the previous task in detail. During this task, heart rate was measured again (time point 2 for heart rate). Participants were then divided once again into two groups. One group read a text about social change (see Appendix A) and the other group read a text about social stability (see Appendix B). Self-reports on emotions were collected right after reading these texts (time point 2 for emotions). Afterwards, they turned on their cameras once again and they were asked to speak about their roles and aims in a stabilizing society or in a changing society. During this task, heart rate was measured again (time point 3 for heart rate). Lastly, they completed a self-reported measure for collective guilt. In the end, participants were thanked and debriefed.

### **Scales & Measures**



All the scale items were completed on 7-point Likert scales, ranging from 1 (strongly disagree) to 7 (strongly agree) unless specified otherwise.

### ***Negative emotions***

The self-reports of emotions included asking participants to rate the following emotions: anxious, worried, irritated, distressed, ashamed, guilty as the negative emotions (Cronbach's  $\alpha = .84$  for T1) and (Cronbach's  $\alpha = .84$  for T2).

### ***Collective guilt***

The collective guilt scale included four items (see Appendix C) adapted from Branscombe and colleagues (2004) specifically to reflect the groups in which the participants belong (white and male). Participants indicated to what degree they agree with statements such as "I feel guilty about men's harmful actions toward women" (Cronbach's  $\alpha = .97$ ).

### ***Heart rate***

Heart rate measures were extracted from videos participants recorded via webcams at three different time points of the study. These videos were 90 seconds long. To capture heart rate measures properly, participants were instructed to sit in a well-lit area, close to their webcam and not to have their hands around their faces.

### ***Attention Checks***

Two different attention checks were inserted in the last part of the study. One question asked: "In this study, it is important that you pay attention. Please select the correct answer to the following question: what month comes after February?" The other question asked participants to choose one specific option: "It is important that you pay attention during this study! Please select the option 'strongly agree'".

### ***Comprehension Checks***

Following both reading tasks (social change vs social stability) two true-false questions were asked to verify that the participants comprehended the text they read.

## Results

### Data Analysis

Before starting the data analysis, the dataset was searched for attention and comprehension check questions and demographics. As a result, one female participant was excluded, the current sample is, therefore,  $N = 219$ . Attention check questions were answered correctly by all of the participants. At least one comprehension check question was answered correctly by 210 of the participants. Participants who did not answer correctly were not excluded because the texts were summarized again after the comprehension check. For the heart rate analysis, 14 participants were excluded because no reliable heart rate measure could be extracted from these participants' video recordings. Dummy variables were created for the conditions.

Data analysis was conducted using SPSS 27 (2020). To test hypotheses 1,2 and 3, two-way repeated-measures ANOVAs were run with the privilege and social change conditions as factors, and with negative emotions at the two different time points as dependent variables. To test hypotheses number 1a, 2a and 3a other repeated-measures ANOVAs were conducted with the difference heart rate measures (subtracting the baseline from the other two time points). Finally, hypothesis 4, namely the mediation effect of Collective Guilt, was tested using the PROCESS function of SPSS (Hayes, 2013).

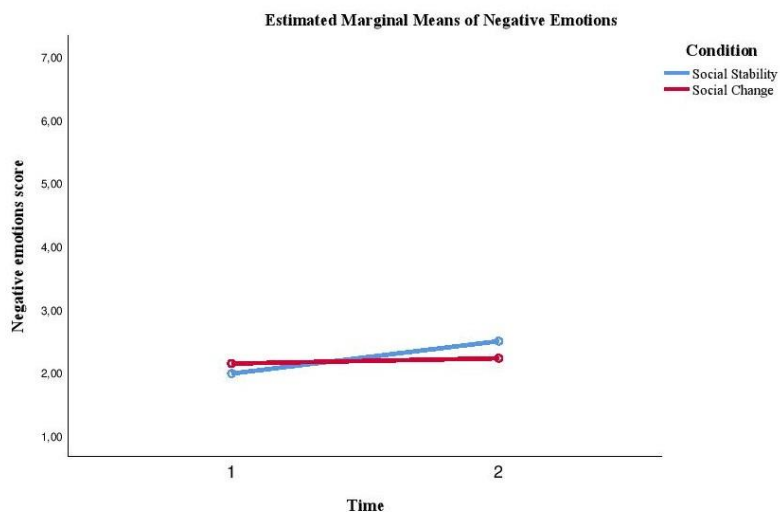
### Negative Emotions

We began by testing hypothesis 1, which predicts higher negative emotions for the privilege listing condition compared to the control condition. The two way ANOVA for the first hypothesis showed that participants in the privilege condition report overall more negative emotions than those in the control condition [ $F(1, 215) = 10.44, p = .001$ ]. Participants in the privilege listing condition have a higher mean for negative emotions ( $M = 2.34; SD = 1.10$ ) than those in the control group ( $M = 1.76; SD = 0.93$ ). With these results,

hypothesis 1 is supported. For hypothesis 2, inspecting the within-subject effects showed a statistically significant difference of negative emotions between time point 1 and 2 for the social change vs social stability conditions [ $F(1, 215)= 8,94, p=003$ ]. The total mean is significantly higher at time point 2 for negative emotions ( $M=2.48; SD=0.11$ ) than time point 1 ( $M=1.97; SD=1.10$ ) in the social stability condition. As shown in Figure 1, overall negative emotions significantly increased for the participants in the social stability condition over time. Results, however, also show that the overall mean for negative emotions at time point 1 and 2 are not significantly different for the social change and social stability conditions [ $F(1,215)=.19, p=.667$ ].

**Figure 1**

*Estimated Marginal Means of Negative Emotions*



*Note. The within-subject effect of social change condition vs social stability condition over time*

The three-way interaction between time, privilege listing and social change conditions were not significant [ $F(1, 215)=0.08, p=.778$ ]. Therefore, hypothesis 3, which estimates privilege

listing followed by reading about social stability would lead to a decrease in negative emotions, is rejected.

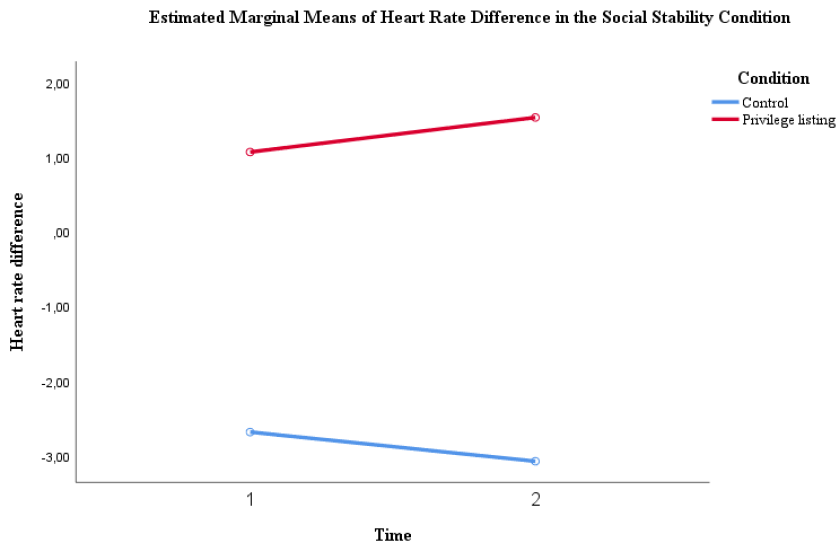
### **Heart rate**

To examine heart rate changes, a repeated-measures ANOVA was performed, which used the successfully extracted heart rate measures from 205 participants. Firstly, however, a two-way ANOVA showed that at the baseline, there was a statistically significant difference between social change and social stability conditions [ $F(1, 204)=4.49, p=.035$ ] while there was no statistically significant difference between the privilege and control conditions [ $F(1, 204)=1.37, p=.244$ ]. Due to the difference in heart rate measures at the baseline for social change and social stability conditions, testing of the hypotheses about the heart rate involved difference scores achieved by subtracting the baseline from the other time points. The two way repeated measures ANOVA for hypothesis 1a shows that the overall mean of heart rate does not statistically differ between the control and privilege conditions [ $F(1,202)=1.63, p=.204$ ]. Additionally, for hypothesis 2a, results show there is no significant effect of reading about social change or social stability on the mean of heart rate over time [ $F(1,202)= 1.09, p=.299$ ]. For hypothesis 3a, the within-subject interaction effect between social change and privilege listing conditions over time was not significant [ $F(1,202)=.734, p=.393$ ]. However, further exploring into the between-subject interaction effect of privilege and time, a significant difference was found [ $F(1,202)= 4.18, p=.042$ ]. Visually, there is a lower heart rate for participants who were in privilege listing and subsequently the social change condition compared to social stability condition which can be observed in Figure 2. Looking into the simple main effects showed that participants who listed their privileges have significantly higher mean for heart rate ( $M=1.30; SD=1.29$ ) than participants who were in the control condition ( $M=-2.88; SD=1.24$ ) within the social stability condition  $F(1,202)=5.45, p=.021$ . In addition, within the control condition, participants who were in the social change

group have a significantly higher mean for heart rate ( $M=1.00$ ;  $SD=1.24$ ) than participants who were in the social stability condition ( $M=-2.88$ ;  $SD=1.24$ )  $F(1,202)=4.90$ ,  $p=.028$ .

## Figure 2

*Estimated Marginal Means of Heart Rate in the Privilege Listing Condition.*



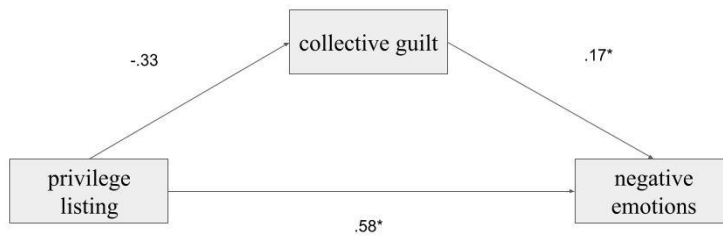
*Note. Interaction effect of privilege listing condition and social change condition when comparing heart rate.*

To test hypothesis 4, namely that the relationship between privilege listing and negative emotions is mediated by collective guilt a mediation analysis was run by using PROCESS function model 4 (Hayes, 2013). It was expected that privilege listing (X) will lead to more negative emotions (Y) through increased feelings of collective guilt (M). The results of the analysis showed, as can be observed in Figure 3, that privilege listing significantly predicts negative emotions,  $b=.58$ ,  $t(217)=4.26$ ,  $p<.001$ . However, privilege listing was not a significant predictor of collective guilt,  $b=-.33$ ,  $t(217)=-1.34$ ,  $p=.182$ . Privilege listing and collective guilt separately predict negative emotions,  $F(2,216)=20.66$ ,  $p<.001$ ,  $R^2=.16$ . Collective guilt also predicts negative emotions,  $b=.17$ ,  $t(216)=4.63$ ,  $p<.001$ .

These results imply that privilege listing does relate to negative emotions, however, this effect does not appear to be explained by collective guilt.

**Figure 3**

*Mediation flow chart of collective guilt*



*\*p<.001*

### **Discussion**

This study aimed to examine how white men respond to social change. Specifically examining privilege listing's impact on negative emotions and its possible mediation with collective guilt as well as privilege listing's interaction with reading about social change vs stability. The first hypothesis proposed that privilege listing would lead to an increase in negative emotions. Results showed support for this hypothesis by suggesting that being reminded of one's group-based privileges leads to feeling negative emotions. This finding is parallel to the earlier findings where participants felt uncomfortable disclosing their high status (Arnett & Sidanius, 2018). However, hypothesis 1a, stating that privilege listing will lead to higher levels of heart rate, was not supported. This means that participants do not appear to show more engagement in the privilege listing task compared to the control task. One possible explanation for the lack of the predicted effect may be the use of methods with which the data were collected. As stated before, heart rate was being extracted from videos recorded remotely with webcams. Throughout the procedure, it may be that participants suboptimally follow the instructions given. These requested participants to optimize the

lighting in one's own environment and to be careful about one's own position during the speech task, for example, by avoiding placing one's hands around the face (van der Kooij & Naber, 2019). Future studies may try to optimize this by conducting the same task in a lab setting where the effect of lighting and hand movements can be reduced.

The second hypothesis, examining the negative emotions due to reading about social change vs stability, was supported. Parallel with the findings of Saguy and colleagues (2009) that show minority group members had weakened support for social change when equality is highlighted, we found that majority group members report more negative emotions when social stability is highlighted. For hypothesis 2a, results showed that reading about social change or social stability did not have an effect on heart rate. It could be that reading these texts were not enough for the manipulation to be working. Hypothesis 3, examining the interaction effect of privilege listing and subsequently reading about social change, was not significant for a decrease in negative emotions. For hypothesis 3a, the three-way interaction was examined in terms of heart rate. Difference scores (T2-T1 and T3-T1) showed that hypothesis 3a was significant at the between-subject level. Trends show that listing one's privileges is associated with a higher heart rate and when one is then reminded of the change taking place in society, heart rate appears to decrease during the task. The effect was small and only present at the between-subjects level. Perhaps, stronger manipulations such as discussion groups or videos on social change vs stability could lead to a more significant effect in hypotheses about social change.

Lastly, the mediation analysis has revealed that privilege listing did not predict collective guilt, contrary to previous findings by Powell and colleagues (2005). The rest of the model was significant, suggesting that privilege listing and collective guilt predicts negative emotions separately. Feelings of collective guilt are present when there is a history of wrongdoing toward another group (Wohl et al., 2006). Since the other group was broadly

labelled as “minorities” in the study, it could be that the participants could not recognize context-specific wrongdoings. Further, previous research has established negative emotions as a powerful motivator for action (Shin & Han, 2014). Therefore the relationship between collective guilt and negative emotions can have its own implications about actions for change.

In a summary, our results show that white males feel more negative emotions when they are reminded of their privileges, supporting earlier findings. They also feel increased negative emotions when faced with social stability instead of social change. The three-way interaction between privilege listing, negative emotions and reading about social change yielded insignificant results for negative emotions. Three-way interaction with heart rate measures analyzed with difference scores indicates that listing privileges and subsequently reading about social change raises white men’s attentional and emotional involvement about their role in a changing society. Collective guilt was not found to be a mediator of the relationship between privilege listing and negative emotions. However, collective guilt is found to be a predictor of negative emotions, and this can be an indicator for action (Shin & Han, 2014).

## **Conclusion**

This study examined the way white men respond to social change. Our results suggested that white men experience increased negative emotions after being made to think about their privileges. Their heart rate measures did not indicate more engagement with the privilege listing task as suggested. According to our findings, white men felt increased negative emotions while reading about social stability than about social change. This indicates when the society is stable in terms of the position of minorities, white men feel increased negative emotions, contrary to earlier findings that suggest majority group members aim for a stable society (Moftizadeh et al., 2021; Jost et al., 2003). Heart rate



measures were insignificant on white men's engagement with social change and stability tasks. The role of collective guilt is not as a mediator according to our findings, however, according to the literature, it is a significant facilitator for acts of reparation (Halloran, 2006; Imhoff et al., 2012; Ferguson & Branscombe, 2010). This study places collective guilt as a predictor of negative emotions experienced by white men after their privileges were made salient, and this has implications for motivation to act (Shin & Han, 2014). Perhaps future research can specifically look for whether or not collective guilt and negative emotions influence actual behaviors to support change.

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## Appendix A

The reality of social change: changing relations.

“Societies are constantly evolving. Due to the extraordinary presence of globalization and mobility across group boundaries, research shows us that the basic structure of societies face unprecedented change. Changing relations are affecting current generations: members of ethnic minority groups are taking up leadership positions in politics and business, and women play a role in areas that used to be male-focused, such as science and technology. Because positions in society are becoming more insecure, there is a need for people to adapt their roles. Traditionally advantaged groups especially have to continue adjusting to the new changing reality. After all, it is only because people have been allowing these patterns to show themselves, that these trends are likely to continue in the future. Accounting for historical developments, scientific research shows that we can expect social relations to become even more unstable in the future. This is the nature of how social structures work: **they are always shifting.**”

## Appendix B

The reality of social stability: stabilizing relations.

“Societies are constantly evolving. However, even with the presence of globalization and some mobility across group boundaries, research shows us that the basic structure of societies remains mostly unchanged. Stable relations are affecting the current generations: only a few selected members of ethnic minority groups are taking up leadership positions in politics and business, and women only play a marginal role in areas that are still male-focused, such as science and technology. Because positions in society are always remaining rather stable, there seems to be little need for people to adapt their roles. Traditionally advantaged groups especially continue to live in a relatively stable reality. After all, it is only because people have been allowing these patterns to reproduce themselves, that these trends are likely to continue in the future. Accounting for historical developments, scientific research shows that we can expect social relations to be further stabilized in the future. This is the nature of how social structures work: **eventually they always tend to stabilize themselves.**”

## Appendix C

### Collective Guilt Scale

Instruction: Please rate the following statements

Scale: 1 (strongly disagree) 2 3 4 5 6 7 (strongly agree)

1. I feel guilty about the harmful actions by advantaged group members towards minority groups.
2. I feel guilty about the negative things other advantaged group members have done to minority groups.
3. I can easily feel guilty for bad outcomes brought about by members of advantaged groups.
4. I feel guilty when I think about the unfair disadvantages minority groups suffer.