Universiteit Utrecht

Majority group members' response to social change issues: the implications for diversity policy support

Lucía Prieto Cadenas (8269440)

Department of Behavioural Sciences, Universiteit Utrecht

Master thesis

Publicly accessible

Abstract

The current study examines how majority group members react to social change in terms of ethnic and gender equality, and detects specific factors that influence majority group members to engage in and support diversity policies. To do this, it considers responses in terms of emotions and heart rate measures. Guided by literature on the influence that emotions can have in transforming behavioural intention, we study how frames of privilege awareness and the perception of social stability interact with emotional responses. Furthermore, it utilises these frames and theorical knowledge to investigate their relation with diversity policy support intentions explained by the report of negative emotions. 219 white men were asked to respond to these frames while being recorded and to engage in a writing and speaking task where heart rate was measured. The results of the study show that privilege listing is linked with higher negative emotional responses. In addition, privilege listing predicts higher behavioural intentions to support diversity policies, and this effect is mediated by negative emotions. The findings of this study provide potential insight into the importance of managing diversity policies and their implications, as well as concrete determinants for white men's behavioural engagement in social change.

Introduction

Social change is a modification of a society's structure in relation to their norms, values, political relations or government forms (VandenBos, 2015). The 21st century is shifting the way society was built and diversity is increasing (Saxena, 2014). This change is observed in the labour market, where organisations have to adapt to a globalized and heterogeneous workforce that presents differences among people in terms of gender, age, cultural background, sexual orientation and ethnic identity, among others. To support this change, the achievement of equity has become an essential objective for companies, which directs them to engage in diversity policies. Focusing on enhancing workplace diversity means that organisations aim to "develop an inclusive environment in which the different skills, cultural perspectives and backgrounds of individuals are valued" (Samuel & Odor, 2018). This requires for organisations to understand how these policies affect workers, their perception of this change and the factors that influence them to adhere to these policies, since employees are the key factor that makes companies effective (Jackson, 2000).

The management of diversity is crucial, and it utilises the uniqueness of each culture found in an organisation (Samuel & Odor, 2018). Employees need to work in a balanced environment that protects their needs, and organisations must adjust to these changes in order to be able to compete (Downey et al., 2014). Nevertheless, this does not mean total equality has been achieved. Ethnic minorities and women are significantly less likely to work in managerial posts than majorities such as white men (Smith, 2002); and this division is observed in the different groups' willingness to support diversity policies: minorities tend to show higher support than majorities (Strauss et al., 2008). This reveals that diversity is mostly observed in the lower ranks of the job market and top positions of companies are still held, in their majority, by white men (Cook & Glass, 2013). Because of these existing inequalities, discrimination still occurs (Johns, 2020), and so does the need to increase the proper management of diversity, essentially by putting a special focus on how workers respond to these policies.

Shortcomings of diversity policies

The focus on diversity is becoming increasingly important as companies realise how its proper management can lead to increased productivity (Mazur, 2010), more engagement from employees (Downey & al., 2014), facilitation for having a broader range of clientele (Saxena, 2014), enhancement of creativity and flexibility in the organisation's' system, and increased development of organisations (Samuel & Odor, 2018). Moreover, lacking in diversity policies

that aim to ensure equality can lead to feelings of stress from those that are lower in social status, resulting in experiencing damaging consequences in physical and mental health (Scheepers & Ellemers, 2019). Additionally, several studies agree on that, on top of the positive outcomes that managing diversity brings for organisations, it is undeniably the right thing to do (Dick & Cassell, 2002; Tran et al., 2010). In one of these studies, Cox (1994), for example, directly reports how managing diversity is a "moral imperative", which demonstrates how studying diversity, its implication in organisations and its impact on people is of the essence.

However, literature shows that diversity policies are not always successful in terms of supporting workers. Diversity policies may suggest a constant condition of fairness, hence counterproductively limiting the possible detection of inequity; these policies may in this way often be used as a protective shell by organisations to abjure possible discrimination claims brought against them (Dover et al., 2013). This, together with the rising interest in diversity policies and their impact in organisations, makes it instrumental to approach the issue by investigating how employees actually perceive these policies, which is the aim of this paper.

In addition, there are several comprehensive studies assessing willingness from workers to engage in diversity policy support and social change with varying causes and results. An article by Strauss and colleagues, (2008) shows that being a woman or an ethnic minority is connected to showing higher adherence for the support of social change and eases favouritism towards diversity policies. Kim et al. (2015), also found that there are differences in terms of gender in the perception of diversity management practices, reporting that women are more favourable towards them than men. Knowles et al. (2014) propose that the motive behind people's willingness to support these matters lies within their identification status. This means that, for example, people who highly identify as white show higher opposition to policies that diminish white privilege. Additionally, research also shows empathy as an important predictor for the support of these policies (Brouwer & Boros, 2010; Goodman, 2000).

These studies show the different approaches and results that can be found when inspecting diversity policies and social change. This paper aims to contribute to the discussion by investigating specific antecedents of a particular target majority group, white men, and their willingness to engage in diversity policy support.

Social change and majority groups

While in recent years research has focused on how to support minority group members, there is not an extensive amount of information on how majority groups react to social change and

diversity policies. However, learning more about this perspective would be relevant and useful to, for instance, increase the effectiveness of diversity policies, among others. First, because majority groups' position in society enables them to hold a lot of power in the implementation of policies for the achievement of social change. Second, and as mentioned above, because top positions are largely held by white men, and these policies tend to increase their effectiveness when supported by leaders (Scarborough et al., 2019). Third, because social change can sometimes induce defensiveness of majority groups; an emotional response that can be appeased by making them feel included in these policies, (Scheepers & Ellemers, 2019), resulting in more positive attitudes towards supporting gender and ethnic equality.

Interestingly, a commonly found solution for the decrease of inequality is that of increasing contact within distinct groups (Kaçmat et al., 2019). This approach argues that "intergroup bias can decrease through positive encounters between members of different groups" (Saguy et al., 2009). However, an outcome of this approach is that of a misplaced perception that, because there is contact between groups, social change has been achieved, which results in reduced support for actual social change (Kaçmat et al., 2019; Saguy et al., 2009). This means that perceiving that society changes and that equality has been achieved can in fact have the opposite effect and result in the continuation of inequality. Because of these findings, this study investigates the effects that framing society as changing or not changing has on white men.

Emotional responses and privilege awareness

Research shows that adherence to diversity policies may come from different perspectives. One angle reported by Thomas et al. (2009) argues that emotion is a key factor for change in terms of achieving gender and ethnic equality and further focuses on the role of emotions to deepen knowledge on determinants for diversity policy support. On the same line of reasoning, Tran and colleagues, (2010) suggest that emotions are a crucial determinant of support for diversity policies. They distinguish between negative and positive emotions, respectively directing to withdrawal or support for diversity management policies and practice. However, another perspective adopted by the literature suggest that negative amotions can also push people towards positive actions (Tran et al., 2010). For example, we see that majority group members' adherence to support social change may come from experiencing feelings of discomfort or emotions such as guilt (Iyer et al., 2003). Indeed, white men express willingness to engage in social change when experiencing feelings of collective guilt and shame (van Leeuwen et al., 2013; Tran et al., 2010; Wohl & al., 2006), as feeling these emotions induces contrition about

misplaced behaviours and works as a motivational drive for individual responsibility (Tran et al., 2010).

Another perspective in the literature suggests that support for policies to reduce gender and ethnic inequality increases when receiving information about existing inequality (McCall et al., 2017; Scarborough et al., 2019). Ancis and Szymanski (2001), showed that people with high awareness of their status can be more willing to intervene towards decreasing inequality. More specifically, after reading an article about privilege encounter, participants in their study reported higher consciousness and disposition to take action.

Based on these findings, this study focuses on the role that negative emotions and privilege awareness can have on white men and how these factors influence their engagement in and support of social change.

Physiological measures

Because of the large variety of results and conclusions that emerge when investigating diversity policy support, this study will add a psychophysiological approach to move beyond the use of self-reported answers and will use this measure to address social desirability biases. In 2014, Bousefsaf and colleagues introduced a new framework for detecting physiological responses of people participating in a study where they induced stress and detected participants' mental workload via a webcam, through a comparison in their electrodermal activity. They showed that greater heart rate variability (HRV) was linked to adaptive emotion regulation, and that reduced HRV was linked to emotional dysregulation such as anxiety. This implicates that it is possible to obtain information about people's unconscious responses and evaluate their emotional engagement towards social change through measuring physiological outcomes (van der Kooij & Naber, 2019)

Recent developments in technology have achieved the proper extraction of heart rate pulsations through the use of low-level cameras by analysing the change in pixels in video recordings. This remote photoplethysmography (rPPG) method works by analysing data of recorded values in the fluctuation of luminance from skin surface from people's heartbeat (van der Kooij & Naber, 2019). This means that it is possible to extract participants' level of attentional and emotional involvement (engagement) in a task they are performing (Monkaresi et al., 2017). This presents advantages over other technologies that measure heart rate, as it enables data retrieval in the distance -avoiding intrusiveness unlike other physiological

measures that have to be put on the skin (Monkaresi et al., 2017), and is done via consumer-level cameras.

Because heart rate variability is linked with emotion regulation, and research shows that high HRV versus low HRV leads to better emotional response, obtaining information on participants' heart rate measures enables a deeper understanding of the processes involving social change. Consequently, higher heart rate measures are linked with dealing with more stressful situations, whereas lower hear rate measures are observed when being in a more relaxed situation (Taelman et al., 2009).

The current study

As abovementioned, workforce diversity is increasing and evolving, and organisations need to adapt to these changes to be able to keep performing at the highest level (Mazur, 2010; Saxena, 2014), as research shows that support for diversity policies can determine a company's success (Scarborough & al., 2019). However, determinants of attitudes towards the implementation of diversity policies and specific determinants for supporting diversity policies are not well-known.

This study focuses on obtaining insight into majority group members' intentions and attitudes towards the support of diversity policies via several factors such as emotions, awareness of privilege and heart rate. It does so by measuring three aspects that relate to white men's identity. First, we explore white men's awareness of their own status by using a privilege listing task. Second, we inspect the effects of presenting frames that highlight the concept of social change as occurring or not occurring (stable vs unstable social frames). Third, we inspect white men's engagement in both the privilege listing task, but also in supporting social change. We do this through a speech task in which heart rate is measured to implement the previously mentioned physiological responses of participants. Finally, we examine self-reported views and intentions of participants in supporting diversity in the workplace.

This study makes use of the previously stated knowledge and further develops it by hypothesising that:

1) White men in the privilege listing condition will report more negative emotions than white men in the control condition.

2) Participants in the social stability condition will report an increase in negative emotions from timepoint 1 to timepoint 2, compared to participants in the social change condition.

3) Participants in the privilege listing condition will report an increase in negative emotions when reading about social stability compared to participants in the social change condition.

4) Heart rate of participants listing their privileges will be higher than that of participants who talk about life events.

5) Heart rate of participants reading about social stability will be higher than that of participants who read about social change.

6) Heart rate of participants in the privilege listing condition who read about social stability will be higher than that of participants who read about social change.

7) White men who list their privileges will be prompted to engage in diversity policy support because of reporting more negative emotions.

8) White men who read about social stability will be prompted to engage in diversity policy support because of reporting more negative emotions.

Methods

Participants:

Participants of this study were recruited via the online tool Prolific, with an initial sample of 220 people who self-identify as white male, and were compensated for their time with a reward of 3.80 pounds. A statistical power analysis was performed using the G-power software for sample size estimation. The effect size in this analysis was 0.25, with an alpha = .05 and power = .80, the projected sample size needed with this effect size is $N = 116$ for the statistical test ANOVA: repeated measures, between factors comparison (Faul et al., 2009).

The final sample of this study is $N = 219$ after the exclusion of one participant who did not fit the criteria of self-identifying as a white male. Participants had a mean age of 41.89 (SD=14.84), ranging from 18 years of age to 58 years of age. Education level shows a majority of participants being bachelor graduates (47.3%), followed by high school graduates (22.7%) and master graduates (15%), vocational degree (9.5%), doctoral degree (2.7%), lower education (1.4%) and other (0.9%). Socio-economic status (SES) of participants was measured with the MacArthur Scale of Subjective Social Status (Adler & Stewart, 2007) on a 10-point scale, where lower score constitutes self-representation of having less resources regarding income, job and education; and higher score constitutes self-representation of having more resources regarding income, job and education. SES shows a mean score of 5.74 ($SD = 1.60$) with the lowest score

being 2 and the highest score being 9, indicating that participants scored around a bit higher than the midpoint of the scale. Political orientation was measured with a 7-point Likert scale ranging from conservative to liberal, and participants scored an average of 4.36 ($SD = 1.62$), indicating a slightly more liberal sample. Finally, the occupation of participants shows 56.8% for employed full-time, 9.5% for retired, 9.5% for students, 9.1% for self-employed, 8.2%, for employed part-time, 3.8% for unemployed and 2.3% for unable to work.

Design and Procedure

This study has a 2 (privilege listing vs control) x 2 (social change vs social stability) between subjects design, with heart rate and emotion as a repeated measure respectively at 3 and 2 timepoints. Emotions were self-reported and heart rate was measured through participants' own webcam and extracted from video footage using rPPG technology (van der Kooij & Naber, 2019). This study was programmed using the online survey tool Gorilla Experiment Builder, with questionnaires and explanations on how to proceed provided in English. Data was collected during the month of April.

After participants provided informed consent (see appendix A), demographic information of participants was collected. Subsequently, a first baseline heart rate measure (timepoint 0) was carried out by asking participants to talk about their most recent holiday. Participants were split at random into either the privilege listing condition or the control condition. In the privilege listing condition, participants were asked to first think about five privileges they have experienced compared to others of different gender and/ or ethnicity, and then list them in a writing task. In the control condition, participants were asked to first think about five more general life experiences and then list them in a writing task. Subsequently, participants were asked to give reports on how they felt about that task (negative emotions timepoint 1). This was followed by a speech task recorded via webcam in which participants in each condition were asked to further explain their previous list (heart rate of participants was measured to gather data for timepoint 1). After this, participants within each condition were divided into two groups again, one for the social change condition and the other for the social stability condition. In the social change condition, participants read a manipulation text (see appendix B) that explained how society is shifting and evolving to favour minority groups. In the social stability condition, participants read a manipulation text (see appendix C) that explaining how society is stable and remains the same for all groups composing it. Both conditions were followed by two questions see appendix D) about the manipulation texts that aimed to ensure participants' comprehension. This was followed by an explanation of the text's main points (see appendix D). Afterwards,

participants were asked to report how they felt about the text they had just read (negative emotions timepoint 2). Then participants were asked to engage in a speech task (heart rate was measured again, timepoint 2) where they had to talk about their role in either a stabilizing society or a changing society. Lastly, participants were asked to give self-reports on their willingness to support workplace diversity. In the end, participants were thanked and debriefed.

Measures

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

Negative Emotions

Emotional response was measured at two timepoints with self-reports of emotions (Anxious, Worried, Irritated, Distressed, Ashamed, Guilty) by asking 'how do you feel about the content of the task you just performed?' or 'how do you feel about the content of the text you just read?'. Reliability analysis for this measure shows a Cronbach's alpha for both timepoint 1, and timepoint 2 of $\alpha = .84$.

Organisation Intention

To measure attitudes towards supporting diversity policies, participants were asked to rate 5 items, adapted from the Reaction-to-Diversity (R-T-D) Inventory (Burkard et al., 2002), including: 'I understand the importance of diversity policies' and 'I intend to cooperate in implementing diversity policies' (see appendix E). Reliability analysis showed that the scale was reliable, Cronbach's $\alpha = .94$.

Heart rate

Heart rate was measured via webcam using rPPG technology. This method works by analysing values in the fluctuations in luminance on people's skin as an outcome of their heartbeat (van der Kooij & Naber, 2019).

The video recordings used were 1 ½ minutes long, and were remotely recorded. Participants were provided with instructions to ensure the proper recording of the videos, such as 'check that your camera is not covered by anything', 'sit in a well-lit area (e.g.: facing a window or with a light turned on in front of you' and 'face straight into the camera and try to sit as still as possible while you speak'.

Attention Checks

Attention checks were introduced by asking two different questions. The first attention check was 'In this study it is important that you pay attention. Please select the correct answer to the following question: what month comes after February?' and the second was 'It is important that you pay attention during this study! Please select the option "strongly agree". 100% of participants answered properly to the attention checks.

Reading Checks

Reading tasks were followed by two true-false questions about the manipulation texts that aimed at ensuring participants' comprehension. 95.9 % of participants answered correctly to at least one of the two questions. Participants with incorrect answers (4.1%) were not excluded from the study because questions were followed by an explanation of the text's main points, ensuring their understanding of the content.

Data Analysis

Data analysis of the current study was carried out using SPSS 27 software (2020). Participants who met the following criteria were excluded from the analysis: 'not being a white male' ; 'not mentioning the relevant topic in the writing task' ; 'failing the attention check'. As a result of the exclusion criteria check, 1 person was excluded from the sample for 'not being a white male'. All participants successfully passed the attention checks and appeared to be completing the tasks given as requested. Moreover, for the heart rate analyses, a total of 14 participants were removed from the sample because of suboptimal video data and inability to extract reliable heart rate data, so N = 205 for heart rate.

Results

Emotions

A 2x2 repeated-measures ANOVA was conducted to test hypotheses 1 and 2. Overall, participants in the privilege listing condition reported more negative emotions than participants in the control condition [$F(1, 215) = 10.44$, $p=.001$]. Mean score of negative emotions for participants in the privilege listing condition is higher ($M=2.34$, $SD=1.10$) than that of participants in the control group ($M=1.76$, $SD=.93$). Hypothesis 1 (increase in reporting more negative emotions for participants in the privilege listing condition) is therefore supported Hypothesis 2: participants in the social stability condition will report an increase in negative emotions from timepoint 1 to timepoint 2, compared to participants in the social change condition, is accepted. The within-subject effects showed a statistically significant difference

of negative emotions between timepoint 1 and timepoint 2 when comparing the conditions [$F(1, 215)= 8.94$, $p = .003$]. Total mean score in the social stability condition is significantly higher at timepoint 2 for negative emotions (M=2.48, SD=.11) than at timepoint 1 (M=1.97, SD=1.10). Figure 1 shows the overall negative emotions' increase for participants in the social stability condition over time.

Figure 1

Estimated Marginal Means of Negative Emotions
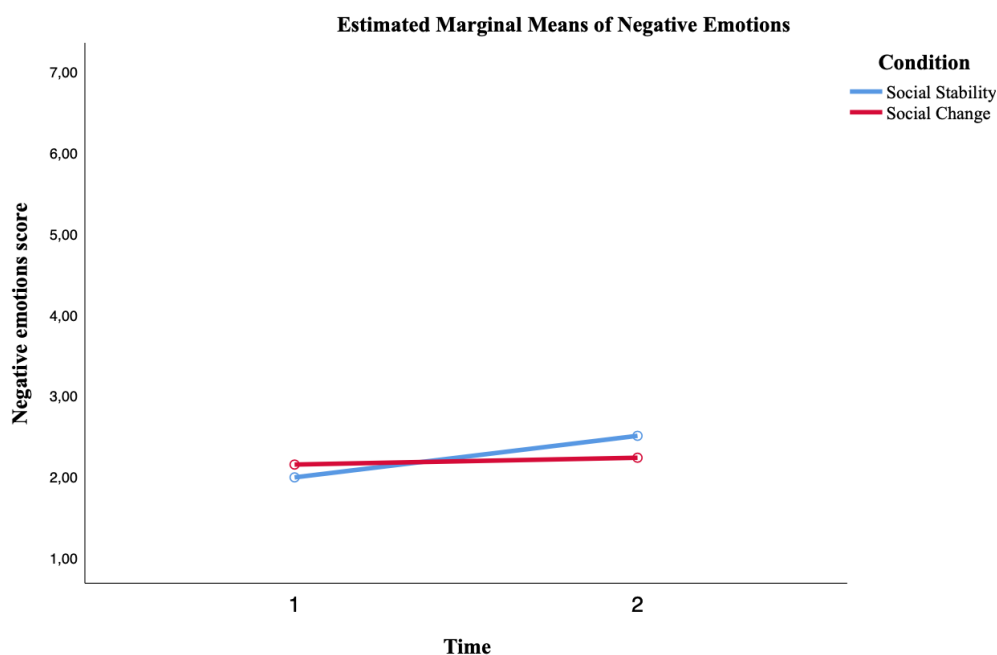
The within-subject effect of social change condition vs social stability condition over time

The three-way interaction between time, privilege listing and social change conditions was not significant [$F(1, 215)= 0.08$ $p=.778$]. Consequently, hypothesis 3, which examined whether those in the privilege listing condition will report an increase in negative emotions when reading about social stability compared to participants in the social change condition, is rejected.
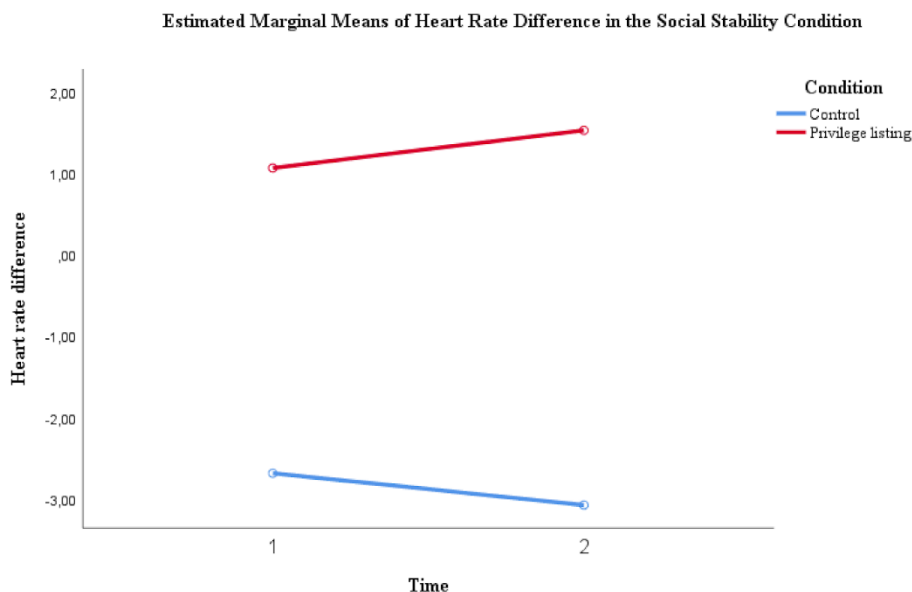
Heart rate

A repeated-measures ANOVA with heart rate measured at three timepoints was performed to examine heart rate changes, which used successfully extracted heart rate information from 205 participants. We found no statistically significant difference at the baseline measure between the privilege listing and the control task [$F(1, 204)=1.37$ $p=.244$]. Nevertheless, there was a

statistically significant difference between social change and social stability in terms of heart rate at baseline [$F(1, 204)=4.49$, $p=.035$]. Hence, difference scores were created because of the difference in heart rate measures for baseline, by subtracting baseline measures from timepoint 1 and from timepoint 2.

To test hypotheses 4 (heart rate of participants listing their privileges will be higher than that of participants in the control condition), a two-way ANOVA was conducted. This showed that the overall mean of heart rate does not statistically differ between the control condition and the privilege listing condition [$F(1,202)=1.63$, $p=.204$]. Moreover, hypothesis 5 (heart rate of participants reading about social stability will be higher than that of participants who read about social change) was rejected, as the two-way ANOVA showed that the overall mean of heart rate did not significantly differed between the two time points for the social change and the social stability conditions [$F(1, 215)=.19$, $p=.667$].

Hypothesis 6 (heart rate of participants in the privilege listing condition who read about social stability will be higher than that of participants who read about social change), showed no significant results in the within-subject interaction effect of social change and privilege listing conditions over time [$F(1,202)=.73$, $p=.393$]. However, inspecting the between subjects effects showed a significant interaction for privilege listing and social change, [$F(1,202)= 4.18$, $p=.042$]. As shown in figure 2, additional examination of pairwise comparisons shows significantly higher heart rate scores within the social stability condition for participants listing their privileges ($M=1.30$, $SD=1.29$) than for participants in the control condition ($M=-2.88$, $SD=1.24$), [$F(1,202)= 5.45$, p=.021]. Moreover, within the control condition, higher heart rate scores were found for participants who read about social change ($M=1.00$, $SD=1.24$) than for participants who read about social stability ($M=-2.88$, $SD= 1.24$), [$F(1,202)= 4.90$, $p=.028$].

Figure 2

Estimated Marginal Means of Heart Rate Difference in the Social Stability Condition

Interaction effect of social stability condition and privilege listing condition when comparing heart rate difference scores.

Diversity policy support

A mediation analysis was conducted using the PROCESS macro in SPSS (Hayes, 2013) to test if the effect of privilege listing and social stability on diversity policy support was mediation by reporting more negative emotions (hypothesis 7). The mediation analysis showed, as can be seen in Figure 4, the path from listing privileges to reporting more negative emotions as being positive and statistically significant ($b = .58$, $t(219) = 4.26$; $p<.001$). The path (direct effect) from privilege listing to diversity policy support is not significant ($b=.05$, $t(219)=0,23$; $p=.818$). The effect of negative emotions on engaging in diversity policy support is positive and significant ($b= .23$, $t(219)= 2,27$; $p=.0243$); and the indirect effect of privilege listing on diversity policy support ($b= 0,13$) is statistically significant: 95% CI [.03, .28]. These results show that listing privileges led participants to experience more negative emotions and these negative emotions are related to higher support for diversity policies.

Simple mediation diagram of hypothesis 7
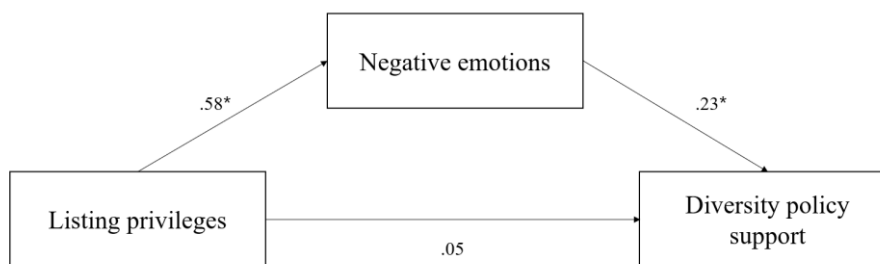
*p<.05

Additionally, the second mediation analysis for hypothesis 8 was not significant, showing the path (direct effect) from social stability to reporting more negative emotions not statistically significant (b=-.27, $t(219)$=-1.69; p=.093). The path (direct effect) from social stability to negative emotions is not significant (b=.13, $t(219)$=.66; p=.510). The direct effect of negative emotions on engaging in diversity policy support is positive and significant (b=.22, $t(219)$=2.55; p=.011). And the indirect effect of social stability on diversity policy support (b=-0,06) is not statistically significant: 95% CI [-.17, .01].

Discussion

The general aim of this study was to examine how majority group members respond to social change issues in terms of gender and ethnic equality and to obtain insight into their behavioural intentions towards diversity policies. The first focus of the analyses aimed at understanding how emotions, privilege recognition and societal structure change interact with each other. The second focus of the analyses aimed at utilising heart rate data retrieval to obtain further insight into participants automatic responses and their level of engagement on the different conditions. The third focus of the analyses examined whether privilege listing or reading about social stability and behavioural intention were mediated by these emotions. In the following paragraphs, findings and implications will be discussed, and limitations of the study will follow.

The first hypothesis anticipated that white men who were in the privilege listing condition would report higher scores of negative emotions compared to those who were in the control condition, namely those who engaged in a neutral speaking task. Results proved support for this hypothesis, showing that the mean score for negative emotions was indeed higher for participants in the privilege listing condition. These results are in line with the expectation that

rising awareness of someone's privileged status can lead to expressing negative emotions; which may occur because of feeling collective guilt (van Leeuwen et al., 2013; Wohl & al., 2006).

Support was found for the second hypothesis of the study: white men who read about social stability will report more negative emotions than white men who read about social change over time. Interestingly, there was a significant difference in the report of negative emotions when looking at different timepoints; the mean score for reporting negative emotions being higher for reading about social stability. This assumption was in line with the idea that the perception of social change being achieved can act as an impediment for actual social change to occur because of inducing a misplaced perception of achieved equality among people (Saguy et al., 2009). In other words: these results indicate that perceived social stability induces participants to report more negative emotions, which arguably occurs because of a perception that there is change that needs to befall (de Lemus & Stroebe, 2015).

Hypothesis 3 argued that participants in the privilege listing condition would report an increase in negative emotions in the social stability reading condition compared to participants in the social change reading task. Results did not show support for this hypothesis. However, and as previously mentioned, figure 1 displays the changes of negative emotions scores from timepoint 1 to timepoint 2, which suggest for a difference in participants emotional responses. Indeed, we do not find a particular effect of social change compared to social stability for participants who list their privileges. In this case, the effect of privilege listing stays present for both the privilege listing and the control condition. A possible explanation for this is that the privilege condition task might be associated with higher self-awareness (Ancis & Szymanski, 2001), and this effect is only found for this condition without finding a difference for participants whether they read about social change or social stability; because self-awareness is already activated for the privilege listing condition, the task that follows does not have a significant impact on participants responses.

Contrary to the expectation, differences in heart rate measures were not significant for hypotheses 4, 5 or 6. The 4th hypothesis of this study assumed that heart rate of participants listing their privileges would be higher than that of participants in the control condition. Reasoning behind these reflexions was in line with research on heart rate measures and heart rate variability (Bousefsaf et al., 2014; Taelman et al., 2009). Heart rate scores are higher when

people engage in tasks that require effort and may induce stress, as is talking about own privileges, mainly if compared with more carefree tasks such as talking about life events (Taelman et al., 2009). However, results did not confirm this hypothesis. Plausible interpretation for the physiological measures results can be that the environment in which these measures were taken might have had an influence on proper data retrieval, for example, the lighting of the room in which participants were (heart rate retrieval was done remotely) may have been suboptimal, and participants may not have properly follow instructions for the camera recordings. Another possible cause is the manipulations. This means that, because heart rate measures show the level of engagement, excitement or effort a participant has when involved in a task (Monkaresi et al., 2017), they could have been feeling uncomfortable during this task and still be engaged, therefore reporting the abovementioned results.

Hypothesis 5 stated that heart rate of participants reading about social stability would be higher than that of participants who read about social change. In the same line of reasoning as for hypotheses 4, it was expected that disconformity with the stability of society would induce higher heart rate scores for participants reading about social stability. Nonetheless, results did not confirm a significant overall difference of heart rate measures depending on conditions. Hence, people show differences in emotions but there is not a difference in terms of how much they participated or were involved in this task.

Hypothesis 6 was also not confirmed. It assumed that the heart rate of participants in the privilege listing condition who read about social change would decrease more than that of participants reading about social stability. Again, these reasonings were in compliance with expectations on heart rate variability been linked with tasks' demands and physiological responses (Bousefsaf et al., 2014). Interestingly, even if there was no significance in these results, figure 2 of the study shows a difference in the heart rate measures, notably higher heart rate for participants in the privilege listing condition who read about social stability compared to participants who read about social change. Hence, we can suppose that there seems to be an effect even though it does not display in the three-way interaction. These findings are interesting for further research; a reason behind these effects being reasonably weak suggests that supplementary research could investigate this effect changing the manipulations. For example, by increasing statistical power (bigger sample size), or changing the reading text for a video, which might have a stronger effect on participants.

Results for hypothesis 7 confirmed that white men who list privileges are prompted to engage in diversity policy support because of the effect of negative emotions. As expected, emotions play an important role in the explanation of behavioural intentions. Thomas and colleagues (2009) argue that Jung was absolutely right by stating that "apathy cannot be transformed into movement without emotion". Interestingly, these results suggest that negative emotions being at first a signal of discomfort might not be an overall negative aspect that should be neglected (Ancis & Szymanski, 2001; Tran et al., 2010), since this first emotional response converts into white men's increased support for diversity policies. Hence, listing privileges being an antecedent for higher negative emotional responses can be considered a good thing as negative emotions explain the relationship between privilege listing and support for diversity policies, which, in the line of reasoning of this study is an imperative and positive outcome. This implies that privilege listing could be used as a tool to promote peoples support for diversity policies, which can be most relevant for organisations to consider.

In contrast with what was expected, hypothesis 8: white men who read about social stability will be prompted to engage in diversity policy support because of reporting more negative emotions; did not show significant results. A plausible explanation for these results might be that the social stability condition could not induce high self-awareness in participants, translating into not significant results for the engagement in diversity policy support. Indeed, when comparting this relationship of variables to that of hypothesis 7, privilege awareness might make participants more self-aware, whereas because the social stability condition does not directly translate into individual action only, participants might have felt less social responsibility. However, it should be considered as an important finding that the relationship between negative emotions and support for diversity policies was positive and significant for this mediation analysis ($p=.011$), hence, future research could implement a change in the social stability reading manipulation to check for different results.

All findings in this study add substantial and important information for an in depth understanding of white men's perceptions, intentions and thoughts on social change and diversity management within organisations. More specifically, we find that inducing participants to list their privileges increases their report of negative emotions, as well as perceiving society as stable makes white men increase their negative emotional responses. Additionally, we find that negative emotions play a crucial role in predicting diversity policy support, especially when participants' privilege awareness was increased. This study

encountered difficulties in the detection of strong effects for heart rate values. However, small effects being detected suggests that a change in the manipulations or increased sample size might guide towards different and stronger results.

Limitations

The first limitation found in the study concerns heart rate. Results showed relatively weak effects on the heart rate measures, which might suggest that participants did not perform as we expected. Specifically, participants might not have properly followed instructions about the optimisation of the environment as requested. Moreover, manipulations of the conditions might not have been sufficiently engaging for the specific sample of this study, and could suggest for a change from the reading texts to more engaging stimuli as can be watching a video.

Another possible limitation for the study is that participants used their own materials (webcams) for the completion of the tasks, since data retrieval was done remotely, which means that participants were immersed in different environments. It could be interesting to recreate this study in a laboratory environment were all participants are provided with the same materials.

A last limitation of the study concerns design. The questions measuring diversity policy support were asked towards the end of the study, therefore previous questions might have had an influence on the way participants reported their answers, and participants attentional focus could have diminished. Further research could change this design and ask these questions at an earlier time in the study to see if results vary in some way.

Conclusion

The present study contributes to existing knowledge on the role of diversity policies in organisations. In sum, the purpose of this research was to provide additional insights regarding the relation of emotions with frames of social change and privilege awareness activation. The study provides further evidence to existing literature on the substantial role of emotions. Specifically, that of negative emotions for majority groups' engagement in diversity policy support. Furthermore, its objective was to identify specific determinants that make white men engage in support for diversity policies and to support these results with heart rate data extraction. Ultimately, results showed that privilege listing is correlated with higher report of negative emotions, and negative emotions mediate the relationship between privilege listing

and support for diversity policies. Altogether, these results permit for a new understanding of antecedents that influence majority group members' adherence to social change, namely privilege awareness and negative emotions. In addition, it facilitates insight into behavioural intentions, which constitutes an essential perspective that should be further explored. Thus, organisations could use this study to change perspectives on the use of diversity policies and implement practices that make use of the findings of this research. This study indicates the importance of managing diversity and diversity policies within organisations, accounting for white men's actual perceptions of these policies; and provides insight into possible conditions that influence these perceptions.

References

Ancis, J. R., & Szymanski, D. M. (2001). Awareness of White Privilege among White Counseling Trainees. *The Counseling Psychologist*, *29*(4), 548–569. https://doi.org/10.1177/0011000001294005

Bousefsaf, F., Maaoui, C., & Pruski, A. (2014). Remote detection of mental workload changes using cardiac parameters assessed with a low-cost webcam. *Computers in Biology and Medicine*, *53*, 154–163. https://doi.org/10.1016/j.compbiomed.2014.07.014

Brouwer, M. A. R., & Boroş, S. (2010). The influence of intergroup contact and ethnocultural empathy on employees' attitudes toward diversity. *Cognition, Brain, Behavior: An Interdisciplinary Journal, 14*(3), 243–260.

Burkard, A. W., Boticki, M. A., & Madson, M. B. (2002). Workplace Discrimination, Prejudice, and Diversity Measurement: A Review of Instrumentation. *Journal of Career Assessment*, *10*(3), 343–361. https://doi.org/10.1177/10672702010003005

Cook, A., & Glass, C. (2013). Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO? *Strategic Management Journal*, *35*(7), 1080–1089. https://doi.org/10.1002/smj.2161

Cox, T. (1994). *Cultural Diversity in Organizations: Theory, Research and Practice (English Edition)*. Berrett-Koehler Publishers.

de Lemus, S., & Stroebe, K. (2015). Achieving Social Change: A Matter of All for One? *Journal of Social Issues*, *71*(3), 441–452. https://doi.org/10.1111/josi.12122

Dick, P., & Cassell, C. (2002). Barriers to Managing Diversity in a UK Constabulary: The Role of Discourse. *Journal of Management Studies, 39(7), 953–976. https://doi.org/10.1111/1467-6486.00319*

Dover, T. L., Major, B., & Kaiser, C. R (2013). Diversity initiatives, status, and system justifying beliefs: When and how diversity efforts de-legitimize discrimination claims. *Group Processes & Intergroup Relations, 17* (4), 485-493. https://doi.org/10.1177/1368430213502560

Downey, S. N., van der Werff, L., Thomas, K. M., & Plaut, V. C. (2014). The role of diversity practices and inclusion in promoting trust and employee engagement. *Journal of Applied Social Psychology*, *45*(1), 35–44. https://doi.org/10.1111/jasp.12273

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*, 1149-1160

Goodman, D. J. (2000). Motivating People from Privileged Groups to Support Social Justice. *Teachers College Record*, *102*(6), 1061–1085. https://doi.org/10.1111/0161-4681.00092

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modelling. Retrieved from http://www.afhayes.com/public/process2012.pdf

Iyer, A., Leach, C. W., & Crosby, F. J. (2003). White guilt and racial compensation: The benefits and limits of self-focus. Personality and Social Psychology Bulletin, 29, 117– 129i

Jackson, D. (2000). Dynamic Organisations. *Becoming Dynamic, 210–215.* *https://doi.org/10.1057/9780230376502_13*

Johns, M. (2020, October 13). Breaking the glass ceiling: structural, cultural, and organizational barriers preventing women from achieving senior and executive positions. Semantic Scholar. https://www.semanticscholar.org/paper/Breaking-the-glass-ceiling%3A-structural%2C-cultural%2C-Johns/4f3da642eb2aeaf791b659df7bc1b593649182a0

Kaçmaz, T., Türnüklü, A., & Karazor, V. (2019). Intergroup Contact: An Investigation of Intergroup Contact between Students with Different Social Identities Living in The Same Dormitory Room. *Journal of Qualitative Research in Education, 7(2), 1–22.* *https://doi.org/10.14689/issn.2148-2624.1.7c.2s.10m*

Kim, H. K., Lee, U. H., & Kim, Y. H. (2015). The effect of workplace diversity management in a highly male-dominated culture. *Career Development International, 20(3), 259–272.* *https://doi.org/10.1108/cdi-06-2014-0082*

Knowles, E. D., Lowery, B. S., Chow, R. M., & Unzueta, M. M. (2014). Deny, Distance, or Dismantle? How White Americans Manage a Privileged Identity. *Perspectives on Psychological Science*, *9*(6), 594–609. https://doi.org/10.1177/1745691614554658

Mazur, B. (2010). Cultural Diversity in Organisational Theory and Practice. Journal of Intercultural Management. 2(2), 5-15.

McCall, L., Burk, D., Laperrière, M., & Richeson, J. A. (2017). Exposure to rising inequality shapes Americans' opportunity beliefs and policy support. *Proceedings of the National Academy of Sciences*, *114*(36), 9593–9598. https://doi.org/10.1073/pnas.1706253114

Monkaresi, H., Bosch, N., Calvo, R. A., & D'Mello, S. K. (2017). Automated Detection of Engagement Using Video-Based Estimation of Facial Expressions and Heart Rate. *IEEE Transactions on Affective Computing, 8(1), 15–28. https://doi.org/10.1109/taffc.2016.2515084*

Samuel, A.P., & Odor, H.O. (2018). Managing Diversity at Work: Key to Organisational Survival. *European Journal of Business and Management, 10*, 41-46

Saguy, T., Tausch, N., Dovidio, J. F., & Pratto, F. (2009). The Irony of Harmony. *Psychological Science*, *20*(1), 114–121. https://doi.org/10.1111/j.1467-9280.2008.02261.x

Saxena, A. (2014). Workforce Diversity: A Key to Improve Productivity. *Procedia Economic and Finance*, *11*, 76–85. https://doi.org/10.1016/s2212-5671(14)00178-6

Scarborough, W. J., Lambouths, D. L., & Holbrook, A. L. (2019). Support of workplace diversity policies: The role of race, gender, and beliefs about inequality. *Social Science Research*, *79*, 194–210. https://doi.org/10.1016/j.ssresearch.2019.01.002

Scheepers D. & Ellemers N. (2019), Status stress: Explaining defensiveness to the resolution of social inequality in members of dominant groups. In: Jetten J., Peters K. (Eds.) The Social Psychology of Inequality. Berlin (Germany): Springer. 267-288.

Smith R. 2002. Race, gender and authority in the workplace: theory and research. Annual Review of Sociology 28: 509–542.

Strauss, J. P., Sawyerr, O. O., & Oke, A. (2008). Demographics, Individual Value Structures, and Diversity Attitudes in the United Kingdom. *Journal of Change Management*, *8*(2), 147–170. https://doi.org/10.1080/14697010701799445

Taelman, J., Vandeput, S., Spaepen, A., & Van Huffel, S. (2009). Influence of Mental Stress on Heart Rate and Heart Rate Variability. *IFMBE Proceedings*, 1366–1369. https://doi.org/10.1007/978-3-540-89208-3_324

Thomas, E. F., McGarty, C., & Mavor, K. I. (2009). Transforming "Apathy Into Movement":The Role of Prosocial Emotions in Motivating Action for Social Change. *Personality and Social Psychology Review*, *13*(4), 310–333. https://doi.org/10.1177/1088868309343290

Tran, V., Garcia-Prieto, P., & Schneider, S. C. (2010). The role of social identity, appraisal, and emotion in determining responses to diversity management. *Human Relations*, *64*(2), 161–176. https://doi.org/10.1177/0018726710377930

VandenBos. APA Dictionary of Psychology. (2015). American Psychological Association. https://dictionary.apa.org/social-change

van der Kooij, K.M., & Naber, M. (2019). An open-source remote heart rate imaging method with practical apparatus and algorithms. Behavior Research Methods, 51(5), 2106-2119. https://doi.org/10.3758/s13428-019-01256-8

van Leeuwen, E., van Dijk, W., & Kaynak, Ü. (2013). Of saints and sinners: How appeals to collective pride and guilt affect outgroup helping. *Group Processes & Intergroup Relations*, *16*(6), 781–796. https://doi.org/10.1177/1368430213485995

Wohl, M. J. A., Branscombe, N. R., & Klar, Y. (2006). Collective guilt: Emotional reactions when one's group has done wrong or been wronged. *European Review of Social Psychology*, *17*(1), 1–37. https://doi.org/10.1080/10463280600574815

Appendix A – Informed consent

Dear participant,

Thank you for your interest in our study!

This study aims to understand your opinion about current events in society. Completing this questionnaire will take around 30 minutes, and consists of a writing, reading and speech task.

To complete the speech task this study makes use of **webcam technology** and will record your facial expressions as well as your voice. These recordings will not be linked to any additional personal information that could identify you (e.g. your name or IP address). These data will remain **confidential**, meaning that only the researchers involved can access the data. Personal data such as in the video recordings will be stored separately from the raw research data. Results obtained from these data will be reported and shared in an **anonymous format**. Any personal information that could identify you will be removed or changed before files are shared with other researchers or results are made public.

The data that will be collected in this study are stored and secured to the highest standards. Data will be used for scientific research purposes only and stored for at least 10 years, in accordance to guidelines for data storage and privacy.

Please note that this study includes questions to confirm that you are paying **attention**. Make sure you read each question carefully.

Your participation in this study is completely voluntary. If for any reason you may want to stop filling in this questionnaire you may do so at any time. You will be compensated for your participation with a reward of 3.80 pounds.

If you have any questions you may contact us at e.a.m.bacchini@uu.nl or contact an external person to this project if you have an official complaint about the study: klachtenfunctionaris-fetcsocwet@uu.nl

If you agree that you have read this information letter and agree to participate in the following study, please check the first box below.

☐

Yes, I have read and understood the above information, I will participate in this study

Appendix B – Social change text

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 C – Social stability text

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 D – Comprehension questions and explanation

Social stability condition

Please answer these questions to show your understanding of the text you just read. **According to the text are these statements true or false?**

The basic structure of current societies remains largely unchanged.

○ True

○ False

Relationships between groups in society have significantly shifted.

○ True

○ False

You have just read a text about the evolution of society. This text stated that the nature of societies is to be generally stable. Changes in relationships between groups are mainly happening at a superficial level. Groups in society do not have to adapt.

Social change condition

Please answer these questions to show your understanding of the text you just read. **According to the text are these statements true or false?**

The basic structure of current societies remains largely unchanged.

○ True

○ False

Relationships between groups in society have significantly shifted.

○ True

○ False

You have just read a text about the evolution of society. This text stated that the nature of societies is to be unstable. Changes in relationships between groups are now happening faster than ever before. Groups in society now have to adapt.

Appendix E – Diversity policy support scale

Please now consider your stand in the realm of work regarding diversity. Please rate the following statements.

	1 (strongly disagree)	2	3	4	5	6	7 (strongly agree)
I understand the importance of diversity policies.	○	○	○	○	○	○	○
I would like to participate in the support of diversity policies.	○	○	○	○	○	○	○
I intend to cooperate in implementing diversity policies.	○	○	○	○	○	○	○
I support diversity policies.	○	○	○	○	○	○	○
I intend to withdraw from supporting diversity policies.	○	○	○	○	○	○	○