

Status Stress:
Explaining Defensiveness to the Resolution of Social Inequality in Members of
Dominant Groups

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Abstract

This chapter examines an important barrier to achieving more equality in society: The resilience of dominant group members to social change initiatives. We build on relevant theory and research to examine structural and psychological factors that contribute to the emergence of ‘status stress’, i.e., the threat among those high in status due to shifting inter-group status relations. We describe psychophysiological research revealing that as long as status differences are *stable*, members of *lower* status (disadvantaged or subordinate) groups show cardiovascular responses indicative of threat (high vascular resistance, low cardiac performance, high blood pressure). However, when status differences become *unstable* this cardiovascular threat response emerges among members of *higher* status (privileged, dominant) groups. Importantly, these responses occur autonomously, implying both that they are relatively uncontrollable, and that they may not show up in self-reports. Nevertheless, research that shows the emergence of status stress has a clear and predictable impact on behavior. We discuss the implications of these insights for interventions that seek to overcome defensiveness against social change among members of dominant groups.

Key-words: Status, power, stability, legitimacy, inter-group relations, social identity, psychophysiology, stress

Social Inequality and Status Stress

One of the key moral values endorsed by people across different cultures and contexts is the importance of justice and fairness (e.g., Haidt, 2012). Yet inequality between individuals and groups in society persists. In fact, there is evidence that differences in access to important resources—those that affect a range of important life outcomes such as psychological well-being, physical health, and opportunities for work and education—are increasing rather than becoming smaller (see Ellemers, Derks, van Nunspeet, Scheepers, & van der Toorn, 2017). If people generally strive for fair and equal outcomes, why is it so difficult to reduce existing social inequalities? In this chapter we address a key factor that plays a role in explaining this, namely the (physical manifestations of) *status stress*, that prospects of social change elicits among members of high status or otherwise privileged groups in society.

Social Rank and Stress

Social inequality is an important source of stress for those lower in social status. Being low in social rank and lacking control over important life-outcomes is associated with a range of adverse consequences and can damage physical and psychological health (e.g., Clark, Anderson, Clark, & Williams, 1999; Sapolsky, 2004; 2005). Moreover, the negative stereotypes associated with individuals and groups that occupy lower ranks in society can cause them to be considered as lesser humans (e.g., Harris & Fiske, 2006; see also Augoustinos & Callaghan, Chapter XX; Fiske & Durante, Chapter XX). This induces feelings of social exclusion and lack of social support that are stressful in themselves, but also undermines motivation and distracts from task performance in work and educational settings, making it more difficult to improve their plight (e.g., Derks, Van Laar, & Ellemers, 2007).

Compared to those lower in rank, those higher in rank may seem to live a relatively stress-free life. They typically have easy access to important material resources (jobs,

housing, healthcare) and have more control over their own and other-people's outcomes. But do these benefits really prevent them from experiencing stress? High expectations held by themselves and others around them, and long-term financial commitments that need to be met (e.g., to educate their children, to be able live in an attractive neighborhood, to maintain a certain lifestyle), can also be a source of stress. This is the case, for instance, among financial professionals who are continually reminded of the possibility that they can be made redundant and lose their job suddenly and unexpectedly (Ho, 2009). Considering the possibility that they will have to give up their house, put their children in a less prestigious school, or being made aware that others envy their good fortune and might rejoice in their downfall are all disconcerting and potentially stressful thoughts, even for those who are objectively well-off.

Indeed, members of dominant groups that clearly have positions of relative dominance and privilege in society (e.g., White men) can respond quite defensively to measures meant to benefit others, for instance relating to the arrival of migrants in their country, or to the introduction of affirmative action programs for minorities in their companies (e.g., Dover, Major, & Kaiser, 2016). Yet, the support of those who currently hold positions of privilege can be crucial for noting and challenging unequal treatment and social disadvantage in society (Cihangir, Barreto, & Ellemers, 2014; Drury & Kaiser, 2014).

In the current chapter we focus on the relationship between social inequality (indicated by differences in group-based power and status) and physical stress (See Figure 1). We consider physical stress in terms of cardiovascular patterns indicating positive "challenge" vs. negative "threat" motivational states. We focus in particular on the status stress experienced by members of privileged (higher status/power) groups (see also Jetten, Mols, Healy, & Spears, 2017), complementing prior analyses that mainly focused on the experience of those who belong to disadvantaged groups (e.g., Ellemers & Van Laar, 2010). We argue that this status stress is an important factor in the resistance these individuals may show against

attempts at achieving greater equality. We identify factors that contribute to the emergence of such stress and examine its behavioral implications. Finally, we consider how insights into the conditions that raise status stress and the nature of the stress experienced, can be recruited to prevent and address defensive responses against changes aiming to achieve greater social equality, such as resisting the introduction of affirmative action policies in the workplace (Dover et al., 2016; Faniko, Ellemers, Derks, & Lorenzi-Cioldi, 2017).

Theoretical Background

Frames of Reference

Current examinations of how people respond to social inequality resonate with a long-standing tradition of scholarship in the social sciences. In fact, this is a key area where theoretical and empirical insights from political sciences (on origins of collective action), economics (on definitions of equity), and sociology (on differences between groups in society) have been connected to those of psychology – by specifying mechanisms of social comparison, feelings of relative deprivation, and legitimacy concerns that relate to the satisfaction, well-being, and motivation of individuals living in these societies. The analysis of societal-level outcomes by invoking individual-level perceptions and experiences can be achieved by employing social identity theory as a focal lens that helps us to understand how individuals experience and respond to broader patterns of inequality between groups in society (Tajfel, 1974, 1978; Tajfel & Turner, 1979; see also Ellemers, 1993). This perspective elucidates in particular how *developments over time* and *perceived changes* in current material and social outcomes (education, healthcare, housing, employment) impact on the emergence of threat. It also explains why such changes can elicit defensive responses typically expressed by members of dominant and subordinate groups in society.

In our analysis, we go beyond objective differences in societal or economic outcomes. Notwithstanding the degree to which social inequality actually exists, and independently of the actual favorability of one's position in terms of material wealth or employment status, the approach we take emphasizes the importance of *subjective* experiences. We address changes in evaluations of current outcomes, depending on how these *compare* to the outcomes of others, and how they relate to past experiences and future prospects (see also Festinger, 1954). This analysis draws on, and combines insights from, different theoretical perspectives that have addressed such issues (relative deprivation theory, Martin, 1981; social identity theory, Tajfel & Turner, 1979; system justification theory, Jost & Van der Toorn, 2012). The common thread connecting these perspectives is that they all focus on the importance of *subjective* experiences instead of objective outcome differences. As a result, the experience of well-being, satisfaction with current outcomes, motivation to change, and strategies employed to achieve such change is seen to depend on the *frame of reference* people use to assess their current outcomes. The key to understanding how people respond to the social situation they are in hence requires an assessment of their subjective perceptions in terms of (a) how their outcomes compare to those of relevant others and whether this seems legitimate, (b) how current outcomes relate to past outcomes, and (c) what future developments are envisioned (Levine & Moreland, 1987). We will now elaborate on these different types of comparisons and consider how this helps to explain the way people respond to societal inequality.

Social Comparisons – Looking Up and Looking Down

When people think of the job they have, the house they live in, or the lifestyle they can afford, there is no objective standard to determine how well or badly they are doing. Instead, people typically talk to others outside their group (e.g., colleagues at other companies) to assess whether conditions are more favorable elsewhere. Visits to friends or relatives unwittingly make them aware of different housing options that may be available, and lifestyle

choices of neighbors reveal which cars they might drive or which schools their children might attend. The fact that those we encounter and compare to have this impact on how we perceive our own outcomes, also explains why some people are quite satisfied with a dull and mediocre job, or a modest income, while others never seem satisfied, however much acclaim or wealth they acquire. Some people who do not have much can still be happy when they realize they earn more than former class mates who received similar training, or left school without a degree. Others, who realize they cannot afford to buy their own house, might accept this when they note that they live in a better area than where they grew up as kids, and at least were able to improve their housing situation over time. Unfortunately, similar mechanisms may cause those who are objectively well-off to be dissatisfied with their outcomes. Noting that family members, neighbors or study friends drive more expensive cars, visit more exotic holiday destinations, or can afford to send their children to a better school, can be an important source of frustration, even for those who are objectively wealthy and privileged (see also Brown-Iannuzzi & McKee, Chapter XX; Walasek & Brown, Chapter XX; Wang, Jetten, & Steffens, Chapter XX).

These patterns of social comparison, the comparison targets people tend to choose, and the typical outcomes of such comparisons, have been described in considerable detail (for overviews, see: Dion, 1986; Smith, Pettigrew, Pippin, & Bialosiewicz, 2012; Walker & Pettigrew, 1972). This work shows that the tendency to compare one's outcomes to those of others not only emerges at the individual level. Instead, people often compare the outcomes of the groups they belong to (e.g., their social class, their religious group, or their professional group), to those of other groups to assess their position in society (e.g., Guimond & Dubé-Simard, 1983). Further, this work shows that the typical tendency is for people to compare their outcomes to those who are (slightly) better off than they are ('upward comparison'). While this may motivate them to improve their own situation, as indicated above, focusing on

the ways in which others are better off can also be a cause of dissatisfaction and frustration. Comparing one's outcomes with those who are worse off ('downward comparison') may temporarily raise feelings of gratitude for one's own superior outcomes. However, research suggests that such downward comparisons are less common, and emerge in conditions that make salient the prospect that one's own situation is likely to deteriorate in the future. In fact, the tendency to consider those who are worse off has been documented primarily as a coping response in situations where people have little or no control over their own outcomes (e.g., in cancer patients).

Stability and Change – Looking Back vs. Looking Forward

Even when, objectively speaking, societal outcomes of oneself or one's group -e.g., in terms of income or housing are reasonably favourable, this state can nevertheless be associated with dissatisfaction when others are seen to be improving at a higher or faster rate. This is the case, for instance, when factory workers receive a percentage pay increase while management bonuses are doubled or tripled (see Peters, Fonseca, Haslam, Steffens, & Quiggin, Chapter XX). Dissatisfaction can also arise when members of groups that are currently well off feel that the improving prospects of other groups imply that they are losing their own position of privilege in society (e.g., migrants gaining access to higher education or attractive housing). It has been argued that this is one of the reasons why White heterosexual males may be reluctant to embrace diversity-enhancing initiatives in organizations (Dover, Major, & Kaiser, 2016).

Here too, the nature of the groups under consideration and the way these groups relate to each other is likely to influence the comparisons that people typically make, and how they feel as a result. In some cases, differences between social groups appear quite fixed and secure, for instance because they are anchored in religious birthrights (Cohen priesthood among Jews) or legal rights (royal or noble titles; inheritance of industrial estates). Even

though this ties key opportunities and social outcomes of individuals to their group membership, instead of their actual merit, this does not preclude that outcome differentials appear legitimate and just (Ellemers & Van Laar, 2010). The very fact that differences in social rank seem highly stable and legitimate makes it difficult to envision that alternative arrangements might be possible in the future, and discourage people from comparing themselves with members of other groups (Wang et al. Chapter XX). In fact, it is common for those who are advantaged as well as those who are disadvantaged to accept the legitimacy of existing status differentials, and people mostly consider outcome differences as fair and just, as long as they seem stable (Jost, Banaji, & Nosek, 2004; Jost & Van der Toorn, 2012).

This all starts to shift when existing differences are subject to change. The mere prospect that the outcomes of individuals and groups might also be different raises ‘cognitive alternatives’ to the status quo (Folger, 1987; Tajfel, 1978; Tajfel & Turner, 1979). When status or power relations in society start to change, this raises the question of whether current outcomes are *legitimate* in that they accurately reflect the different needs or deservingness of individuals and groups involved. The very fact that existing status relations appear subject to change can undermine their perceived legitimacy and elicit protest and collective action on the part of disadvantaged groups in society (Ellemers, 1993). At the same time, this threatens those who currently have high power or status, as they are faced with the prospect of losing their current privilege.

Previous analyses of changing status relations have mainly addressed *cognitive* and strategic aspects of contemplating stable vs. changing outcome differentials (Ellemers, 1993; Scheepers, Spears, Doosje, & Manstead, 2006). These analyses have mainly considered how those who are socially disadvantaged seek position improvement by transferring to groups with higher status in society or by emancipating as a group. We extend existing insights by addressing the *physiological* and *emotional* implications such efforts to achieve change may

have. In doing this, we focus on those who see that their position of privilege is eroding – because other individuals or groups start gaining access to similar outcomes. Specifically, we address the threat of social change among those high in status, and refer to this as “status stress”. In the next section we discuss the biological basis of this form of stress.

Physical Manifestations of Status Stress

Over the last decades, compelling evidence has been obtained for the neuro-physiological basis of status stress (see Table1). Converging findings have been observed among different type of primates, in inter-personal as well as inter-group contexts, whether rank was based on power (asymmetrical control of important resources or outcomes) or status (societal prestige). In the review that follows, we start by considering status stress due to shifting power relations in groups of baboons. We then move on to consider the physiological basis of status stress in more complex human social systems involving conceptions of status, identity, and inter-group relations.

Animal Studies

Early insights in the relation between hierarchy stability and stress can be found in the seminal work by Robert Sapolsky on power dynamics in primate-groups (Sapolsky 1992, see Sapolsky, 2004; 2005, for overviews). In one study, Sapolsky (1992) observed dominance interactions within a group of olive baboons. After paralyzing the baboons, blood samples were collected from which cortisol levels were derived. Results indicated that as male baboons were more often challenged by other males who were close but lower in rank, they had higher levels of cortisol. Similar effects have been found in other groups of primates, and for different forms of rank (in)stability, for example due to animals leaving or entering the group, or when a new group is formed. The typical finding here is that when ranks are stable most stress is found among those low in rank, while when ranks are unstable stress is highest

among those high in rank (Sapolsky, 2004). The former finding is consistent with prior work that has pointed to the ways in which low societal status impacts on well-being and health (Clark et al., 1999; Sapolsky, 2005). In addition, these studies suggest that, under some conditions, those high in rank can also reveal indications of stress. This is most clearly visible under conditions that make the hierarchy less stable.

Human Intra-group Contexts

Recent studies show results similar to those of primate studies in human hierarchies (Jordan, Sivanathan, & Galinsky, 2011; Knight & Mehta, 2017; Scheepers, Röell, & Ellemers, 2015). For instance, in a study using a classic paradigm in the power literature (e.g., Galinsky, Gruenfeld, & Magee, 2003), participants worked on dyadic tasks in which one was assigned a high-power role (e.g., “manager”) and another person was given a low-power role (e.g., “assistant”). The manager instructed the assistant, evaluated his/her performance, and decided about the allocation of a possible monetary bonus between the two of them. Stability was manipulated in terms of whether or not the power roles would change in the course of the session. In line with the primate studies, those low in power revealed higher cortisol reactivity when the positions were stable, but those high in power had higher levels of cortisol when the positions were unstable (Knight & Mehta, 2017).

Moreover, there is evidence that sustained high levels of cortisol negatively impact one’s health and, hence, cortisol is generally seen as a marker for “negative stress”. In addition to neuroendocrine markers like cortisol, cardiovascular responses can also be used to measure stress. By combining certain cardiovascular measures, it becomes possible to differentiate negative stress (threat) from “positive stress” (challenge) and shifting ranks may impact on cardiovascular challenge and threat responses.

On the basis of the biopsychosocial model (Blascovich & Mendes, 2010; Blascovich & Tomaka, 1996; Seery, 2013), Scheepers et al. (2015) applied cardiovascular measures

indicative of threat and challenge to test the status stress hypothesis. A state of threat is marked by relatively high vascular resistance coupled with low cardiac output; it is a defensive response to a demanding situation, aimed at protecting bodily resources, and conserving energy. The threat pattern is driven by the HPA-axis, of which cortisol is the end-product (see above). It is generally considered a maladaptive pattern in the sense that it inhibits effective task responses and is associated with adverse health outcomes over time. Challenge, by contrast, is marked by low vascular resistance and high cardiac output, which functions to mobilize and transport energy to, among others, the muscles and brain. This allows the individual to take charge of the situation and to actively address and deal with the demand encountered. Thus, the challenge pattern represents a more benign arousal pattern, which is typically predictive of positive performance outcomes.

In the Scheepers et al. (2015) study, when their position was stable, participants in a high-power condition showed a cardiovascular response pattern indicative of positive challenge, as might be expected for those in power. However, when their position was unstable, they revealed a cardiovascular response pattern indicative of negative threat. Participants in the low power condition revealed the complementary results pattern. In view of their low power position, they might be expected to show negative stress across the board. However, this was not what was observed. Instead, when their low power position was stable, their cardiovascular response pattern was indicative of threat. However, their cardiovascular responses indicated challenge when their position was unstable.

Together, these studies suggest that similar processes characterize responses to inequality in primate- and human hierarchies. This underlines the generic nature of these effects and a shared evolutionary basis. At the same time, however, modern human social hierarchies differ in important ways from primate communities, for instance in terms of the sheer number of individuals involved, the scope and foundations of differences in social rank,

and in the complexity of implications stemming from multiple partially overlapping hierarchies. For instance, the studies reviewed so far focused on inequality in terms of power, that is, the capacity to directly influence important outcomes (e.g., food, money), of oneself and others in the situation. By contrast, modern human hierarchies are often based on more symbolic indicators of inequality captured in social status, i.e., the more general social value that is ascribed to a person or a group. Second, the studies discussed so far focused on inequality between individuals in inter-personal (or intra-group) hierarchies, while outcome inequalities in modern human hierarchies are often based on *inter*-group comparisons derived from broad social categories such as gender or ethnicity (e.g., “angry white men”). Third, in modern human social hierarchies, cues about the security of the hierarchy and the stability of unequal outcomes are not always explicitly evidenced in overt behaviors, like dominance-interactions. Instead, they tend to be derived from more abstract psychological concepts, such as the *legitimacy* of inter-group status differences that determine unequal access to important social resources and outcomes. In the next sections we consider different features of modern human hierarchies (intergroup relations, status, identity, legitimacy) that relate to emergence and persistence of social inequalities. We provide physiological evidence for operation and impact of status stress in these contexts, and show that this even emerges when the implications of one’s position in the social rank are mainly symbolic.

Human Inter-group Contexts

In an early study on this topic, Scheepers and Ellemers (2005) examined how individuals responded when they were led to believe that their access to important outcomes (in this case social prestige) depended on the task performance of their social group. This was indicated by assessing the influence of status differences between groups on blood pressure of individual group members. Participants were allocated to ad-hoc groups (“minimal groups”), after which they completed a group task – they were led to believe that their group’s

performance on this task represented an important (social) outcome. Group status was manipulated by providing group-level performance feedback on this task. Directly after receiving the group-status feedback, blood pressure was higher for participants who thought their group had performed less well than the other group, compared to participants who had been told their group had outperformed the other group. This indicates the stress experienced by individuals whose group is being placed in a lower rank. However, after a second round of the status-defining task was announced unexpectedly, members of the high-status group revealed higher blood pressure than members of the low status group. This effect would be consistent with the possibility that the group would not be able to keep up its superior performance during the second round of the task (indicating status instability). These effects on blood pressure were particularly strong for participants who identified strongly with their group. This underlines the symbolic and group-based origin of the blood pressure changes observed, and suggest that the experience of stress does not depend on the actual access to material resources but also reflects the operation of more abstract concerns, relating to the individual's sense of social identity.

Further evidence for the status stress hypothesis followed from studies using more direct manipulations of group-status stability (akin to the studies on interpersonal power differences), and using more specific cardiovascular measures of challenge and threat motivational states (Scheepers, 2009; 2017). Findings of these studies were in line with the evidence found in studies exploring inter-personal differences in power and prospective changes in individual rank (Knight & Mehta, 2017; Scheepers et al., 2015). That is, stable differences in group-status elicited threat among individual members of the low status groups, but induced challenge among individuals whose group had high status. By contrast, unstable group-status differences induced challenge among the members of the low status groups, and raised threat among the members of the high-status group (Scheepers, 2009).

Similar effects were found in a study where we compared the impact of secure vs insecure status hierarchies, by inducing the conviction that current outcome differences between groups were legitimate or illegitimate (see also Outten, Lee, Costa-Lopes, Schmitt, & Vala, 2018). As explained above, appraising status differences as legitimate bolsters the status quo, while the perception that current status differences are illegitimate enhances the salience of “cognitive alternatives” for the status quo, and raises claims for social change among members of underprivileged groups, that generally undermine the security of the hierarchy (Tajfel & Turner, 1979). In an experimentally created group setting, Scheepers (2017) examined the influence of legitimacy claims on challenge and threat in low and high-status groups. Participants were placed in a group, performed a joint task, and received feedback about their group’s performance on a task that required both accuracy and speed. Then, participants were confronted with a message by an in-group member claiming that the rated group performance differences were (un)fair, as these did (not) reflect the group’s actual performance due to the way in which accuracy and speed components had been weighed in determining their total score. Results indicated that members of the high-status group were more threatened when status differences seemed unfair, than when they thought their group’s superior performance had been determined fairly.

Thus, empirical evidence clearly reveals that status stress can emerge among those who, objectively speaking, have more favorable outcomes than others. Further, results from different studies show similar patterns regardless of whether social inequalities reflect inter-group differences, or symbolic social identities, and regardless of whether cues of hierarchy security are based on prospects for future change or on legitimacy appraisals of current outcome differentials. In the next section we address existing outcome inequalities between members of different groups in society, and examine neurophysiological evidence for the emergence of status stress among those who are relatively well-off.

Social Categories

Large-scale societal changes, due to, for example, migration, or changing gender roles, can also elicit status stress among those for whom this may imply a loss of privileged access to favorable outcomes. This was observed in a study (Scheepers, Ellemers, & Sintemaartensdijk, 2009) where male and female participants discussed *traditional* versus *changing* gender roles in society. During the debate about traditional gender roles women had slightly higher blood pressure than males. This is again in line with the idea that reflecting on the status quo generally is threatening for members of the subordinate group. There was, however, a much stronger difference in responsiveness of men and women to the prospect of *changing* gender roles. During the debate about change, men had higher blood pressure than women, suggesting that reflecting on changes in the status quo is more threatening for members of the dominant group.

Similar effects have been found in an experiment by Dover et al. (2006), who engaged research participants in a simulated job-interview for a company. Two conditions were compared: In the pro-diversity condition participants learned that the company the participant was ostensibly applying for valued diversity. In the neutral condition no such information was given. Results showed that White male participants in the pro-diversity condition showed cardiovascular reactivity in line with threat, while those in the neutral condition showed a tendency towards challenge.

In summary, our review of empirical studies provides compelling evidence that societal inequality can be as stressful for those who are currently privileged as for those who are deprived of desirable outcomes. Indeed, we revealed that status stress can emerge when considering the possible loss of privilege, and that similar responses were observed regardless of whether we considered unequal outcomes and positions in social rank among individuals in different primate groups, in intra-group comparisons or when considering inter-group

differences in access to important outcomes. Comparable effects were observed regardless of whether unequal outcomes reflected differences in power or status, and regardless of whether the security of existing outcomes was based on information about the stability of future status relations, or the legitimacy of current differences. Now that we have argued and shown that those who are privileged can and do experience physiological stress, it is important to consider the likely psychological and behavioral *implications* of such stress experiences.

Psychological Responses to Status Stress: Defensiveness

The physiological stress profile considered here is relevant to understand people's responses to social inequality and resistance against attempts to distribute social outcomes more fairly. Indeed, the experience of such stress has been associated with behaviors indicating defensiveness and rigidity that generally prevents change, for instance by holding on to one's initial viewpoints (De Wit, Scheepers, & Jehn, 2012). In the context of status stress we argue the typical pattern indicates a desire of those who are privileged to protect the status quo instead of welcoming attempts at reducing social inequality and creating greater fairness.

An obvious response among members of high-status groups who feel threatened in their status by low-status group members, is to "strike back" by developing *negative attitudes and behavioral tendencies* towards members of the low status group. Meta-analytic evidence indeed reveals a relation between the experience of threat on the one hand and prejudice and discrimination on the other, especially towards lower-status groups (Riek, Mania, & Gaertner, 2006). The concrete implications of such a response pattern were illustrated in a study where male participants were confronted with an ambitious feminist woman – who challenged the fact that men still have more access to desired (career and financial) outcomes than women. Compared to those who were not subjected to such threat, threatened males were more likely

to retaliate, in this case by sending pornographic material via the internet to women (Maass, Cadinu, Guarnieri, & Grasselli, 2003). Another illustration comes from a study on native-Dutch shop owners who were confronted with an increase of immigrant entrepreneurs in their neighborhood (Ellemers & Bos, 1998). The native-Dutch shop-owners responded to this threat by discrediting these immigrants, and negatively stereotyping them as being selfish and lazy. Studies such as these reveal the different ways in which movements towards greater social equality can induce status stress and foster stereotyping and prejudice.

Another defensive response to status-threat that has been documented in research is the tendency to prevent other individuals from gaining access to coveted outcomes by *keeping group boundaries closed*. Importantly, this not only implies closing real, physical group borders (e.g., building fences to stop migration), but also psychological borders, in terms of who is, and who is not, considered to be an in-group member. This was observed for instance in a study by Cooley, Brown-Iannuzzi, Brown, and Polikoff (2017). They found that White Americans used stricter criteria to determine who might be included in their group when they were more concerned about changing relations between whites and blacks in the US. That is, White Americans were more inclined to categorize Black-White biracial people as Black as they reported more fear of a shift in the current racial hierarchy.

Status stress among (male) White middle class workers was also cited as a factor explaining support for Trump during the 2016 U.S. elections. The “fear of cultural displacement” was found to be a stronger predictor for support for Trump’s anti-migration policies than economic factors (Jones, Cox, & Lienesch, 2017; Mutz, 2018). The role of status stress in the support of such *political views* was further examined by Major, Blodorn, and Major Blascovich (2016). The experimental procedure they developed revealed that White participants were most likely to report status threat and support Trump’s anti-migration plans

when they strongly identified with being White, and had been led to believe that their racial group would become a minority in the U.S.

Defensive responding by those who experience threat as a result of the prospect of losing their position of privilege can also lead members of high-status groups to see others as being prejudiced against their own group (Wilkins, Hirsch, Kaiser, & Inkles, 2017; Wilkins & Kaiser, 2014). This was demonstrated for instance in a study where ethnic majority-group members who endorsed the fairness of the current system were more likely to anticipate that their own racial group would be the victim of prejudice due to societal progress of ethnic minorities in the U.S. (Wilkins & Kaiser, 2014). Diversity policies in organizations can have similar effects: White men were more concerned about discrimination against their group when they applied for a job in a company that explicitly valued diversity than when they applied in a company that did not explicitly value diversity (Dover et al., 2016). *Claiming victimhood* in this way clearly has a defensive function: When racial progress of minority-group members was made salient, ethnic majority-group members who attributed their negative outcomes to prejudice, also reported higher self-esteem (Wilkins et al., 2017). Thus, such claims of victimhood can help members of dominant groups cope with status stress, but alleviating concerns about loss of privilege in this way also frustrates legitimate attempts to resolve social inequalities.

Consequences for Interventions

In the above, we have identified the antecedents of stress experienced by those who hold higher ranks in society, and reviewed studies revealing the nature of the physical stress response as well as its behavioral implications. We will now apply these insights to consider strategies that are often used to mitigate defensive responses to attempts at alleviating social inequality. We will identify limitations of common approaches at the system level, the group

level and the individual level, and offer suggestions for alternative interventions that take account of current insights on the emergence and implications of status stress.

Why Fairness Appeals May Backfire

A first strategy that is often employed in the hope of avoiding the emergence of threat, is to emphasize that efforts to improve the situation of disadvantaged groups in society do not necessarily result in a loss of privilege for those who are currently advantaged. In fact, this is often cited by economists as a reason for supporting policy measures aiming for general GDP increases and ongoing economic development (see also Ellemers et al., 2017). However, the evidence reviewed above clarifies why it may not be sufficient to simply appeal to fairness concerns when attempting to redress existing inequalities in the access members of different ethnic or gender groups have to key societal resources such as education, housing, or employment. Rationally, it would seem that there is little reason to experience threat in a growth scenario where everyone benefits. However, the psychological theory and research reviewed here clarify why this is not necessarily true. Subjective frames of reference, feelings of relative deprivation, and emotional responses to change prospects all have been shown to elicit stress and defensive responses, even among those who are objectively well-off (e.g., Ellemers, Scheepers & Popa, 2010). Further, it is simply not realistic to strive for ever-extending economic growth or to continue increasing the income, consumption, material gain and control over resources for all members of society, if only due to environmental and sustainability limitations.

A second recurring strategy to curb status stress is to emphasize that social inequalities only emerge as a result of legitimate individual-level differences, for instance in abilities, efforts and life choices made. This rhetoric of ‘the American Dream’ suggests that individual opportunities are not delimited by group-based identities, and that all group boundaries can be transgressed if only individuals are sufficiently deserving (Ellemers & Van Laar, 2010).

However, there is plenty of evidence showing that such individual mobility ideologies do not explain differential outcomes in society. Instead, implicit bias, differences in access to resources, social networks and development opportunities that are tied to gender, ethnicity, class, or religion, all contribute to the allocation of valued outcomes on the basis of social group memberships regardless of individual merit (e.g., DiTomaso, 2013). Yet, this strategy of advocating individual mobility as the best way to address unequal outcomes ('we prefer to consider individual quality, not ethnicity') is often used by policy makers to reinforce the perceived legitimacy and stability of existing merit systems and the access these offer to social opportunities. Indeed, this way of thinking taps into just world beliefs that are shared by those who benefit as well as those who suffer from such perceptions. Yet, we argue that it is not a viable strategy to simply ignore group-based sources of privilege and disadvantage, in attempts to address social inequality. If only because this will inevitably result in -violent- protest in the long run, and the awareness that this eventually will be the case can only reinforce feelings of stress and resistance to change among the privileged.

A final strategy that is often advocated to prevent defensive responses against efforts to combat social inequality involves simply urging those who are currently well off to "stop whining". However, this strategy is ineffective as it denies the emotional and physical reality of the stress experience suffered by those who fear to lose their privileged position.

Legitimate concerns people may have about losing the fruits of their hard work, or being unable to transfer their social standing and wealth to their offspring, should not be dismissed as "first world problems", nor are people helped by recommendations to think of others who are worse off, or by counting their blessings. As we have explained above, activating such comparisons and frames of reference may even intensify the experience of stress as these make people hyper-aware of what they stand to lose. Even those who agree at a cognitive level that it is important to strive for a fairer distribution of societal outcomes or wealth are

not protected from the uncertainty and stress raised by considering alternative societal arrangements to the status quo.

Acknowledging the Experience of Threat

Considering these common strategies and their limitations makes clear that a different approach might be needed to more effectively reform existing systems that perpetuate social inequalities. On the one hand, it is necessary to convince people that current differences in societal outcomes not only reflect individual merit. This is often attempted by presenting statistics about unequal representations of different ethnic groups in education or health statistics, or showing research evidence of implicit bias. However, individuals who experience threat may not be able to fully engage with or process such information – hence they remain unconvinced of the shortcomings of current merit assessments and see no need to change existing systems for selecting individual students, workers, or housing occupants. Indeed, physiological threat responses have been related to increased close-mindedness (De Wit et al., 2012). This has a number of important implications for successful interventions, and requires that the involuntary and physical nature of the stress experienced is taken into account, as well as the ways these limit people's ability to take note of information that is presented to them, or to follow through on their deliberate intentions to treat others fairly. This implies that even if the *threat* of impending social change cannot be alleviated, it may still be worthwhile to help people develop more effective strategies or offer them better resources to help them cope with the *stress* this raises. In doing this, it is important to acknowledge that a process of acceptance is involved in which those who are about to lose current privileges gradually come to realize that change is inevitable, and the cherished past cannot be retained. Some concrete strategies have been demonstrated to show promise in achieving these things.

1. *Reducing the stress experienced.* Successful strategies to reduce social inequality should aim to address and reduce the experience of stress among members of high status groups as an important first step in making them more supportive of social change. This may be achieved for instance by explicitly delimiting the extent of the impending change (to avoid concerns about “what’s next?”), or reassuring members of dominant groups of current outcomes that can be retained. Current attempts to help alleviate social inequality tend to focus on communicating the expected gains for those who are currently disadvantaged. In doing this, they often fail to address legitimate concerns about where changes will stop, making those who are currently advantaged insecure and focusing their efforts on maintaining their current privilege. Research suggests that communicating more explicitly about measures taken to secure current outcomes (e.g., by offering long term employment security), alleviates the perceived instability of the status quo and elicits more constructive responses towards newcomers among those who are advantaged (Rink & Ellemers, 2014).
2. *Supporting coping abilities.* In view of their dominant position, it is easy to forget that the prospect of having to redefine their place in society may seem daunting to those who are currently privileged. The benefits that helped them achieve their current standing (valued skills, useful networks) may no longer be relevant in the future, and this makes it difficult to envision how they can prove their worth in a system that is defined along different parameters. Even when it is not possible to reduce the stress they experience as a result, they may be supported by better engaging with the challenges they face. As we have shown above, the social hierarchies that are subject to change not only determine material outcomes, but also have symbolic implications for people’s sense of worth and identity. Accordingly, it has been observed that

concerns raised (e.g., due to the influx of migrants) focus on the loss of important *values*, even if resources remain intact. Further, the group-level nature of impending changes also implies that concerns relate to people's *social* reputations in the eyes of other ingroup members as much as to their individual self-views. Hence, it is relevant to know that helping people to affirm individual- and group-level values and providing them with alternative sources of self-worth (e.g., striving to achieve societal ideals instead of pursuing more material wealth) can alleviate stress and induces positive engagement with task at hand, instead of raising defensive responses (Derks, Scheepers, Van Laar, & Ellemers, 2011). Additional studies reveal that offering concrete opportunities to improve the image of the self or the ingroup in the eyes of others may also help avoid defensive responses and increase perceived coping abilities (Van der Lee, Ellemers, & Scheepers, 2016; Van der Toorn, Ellemers, & Doosje, 2015). Further, communicating explicitly about fairness of procedures and opportunities for voice, can also help people cope with the prospect of decreasing outcomes (Ståhl, Vermunt, & Ellemers, 2008).

3. *Focusing on future gains.* Our analysis has revealed that future prospects instead of current outcomes are a key source of status stress. Yet, it is common that attempts to resolve social inequalities rely on the assumption that people will spontaneously realize that the proposed changes should offer more equal opportunities for all, and they should therefore embrace them. In view of the impact physiological stress has on rigidity and close-mindedness (De Wit et al., 2012), it is unlikely that people spontaneously show an interest and engage with information provided, draw 'obvious' conclusions or focus on the societal gains instead of the personal losses associated with impending changes. Hence, it may be useful to find ways to help people focus on

the broader concerns or to more explicitly point out the moral gains for them of contributing to the reduction of social inequality (see also Ellemers, 2017). Likewise, instead of focusing on the disruptive nature of impending changes (e.g., less clear division of roles in dual earner couples), it may help to emphasize elements of the current situation that are likely to be retained or even improved. This may be achieved, for instance, by facilitating the adoption of a new and more complex sense of self in which multiple identities can co-exist (caring for the family by providing income as well as being an involved parent; see also Scheepers, Saguy, Dovidio, & Gaertner, 2014).

4. *Expanding the range of valued outcomes.* The tendency to focus on material outcomes as the key indicator of social status is endorsed most forcibly by those who compare favorably to others on this dimension – members of the rich elite (Wang et al., Chapter XX). However, members of religious minorities, lower social classes, or migrant groups tend to invoke a range of alternative sources to derive their social standing and sense of self-worth, such as their moral values, their sense of community, or their pride in their cultural heritage (e.g., Lamont, 2000; Williams, 2017). In fact, scholars examining these issues have argued that the focus on material wealth as the single dimension of success only creates competition and conflict in society with few winners and many losers. Instead, it might be beneficial for all parties involved to consider *multiple* ways in which individuals and groups can contribute to society and are afforded respect and esteem. This resonates with notions on the importance of “social cooperation” between groups (Tajfel, 1978; Tajfel & Turner, 1979), and evidence showing that how a loss of status on one dimension can be compensated by a gain on another dimension (Yzerbyt & Cambon, 2017). Thus, instead of framing

status changes as a competition for superiority on a single dimension, it may be helpful to reevaluate the possibility that different dimensions can indicate personal or group virtue and hence afford people with a valued position in society. To be successful, however, such a strategy for social change should consist of more than words alone. Instead of privileging intellectually based skills and economic gain as key societal contributions, this requires that changes are made to attach more value to different types of contributions to society and community life. Securing that people in professions that are indispensable for well-functioning societies (such as teachers, nurses, garbage collectors and plumbers) can obtain affordable housing, are offered secure jobs, and decent income levels, makes it easier for them and others to value different forms of craftsmanship, provision of care, and citizenship as important sources of social standing.

Conclusion

In this chapter we have considered theoretical and empirical perspectives on the origins, correlates and implications of the experience of status stress. These insights help understand why those whose support is needed to resolve status inequality are likely to resist attempts at achieving more equal outcomes for all. Understanding the emergence and nature of such threat experiences also contributes to the development of alternative strategies and ways of communicating about impending change. If managed well, taking account of these insights may open up the willingness to change among those who currently have positions of privilege. They may also enhance support for alternative strategies that may be used to help people obtain social respect and feelings of virtue, regardless of their position in society.

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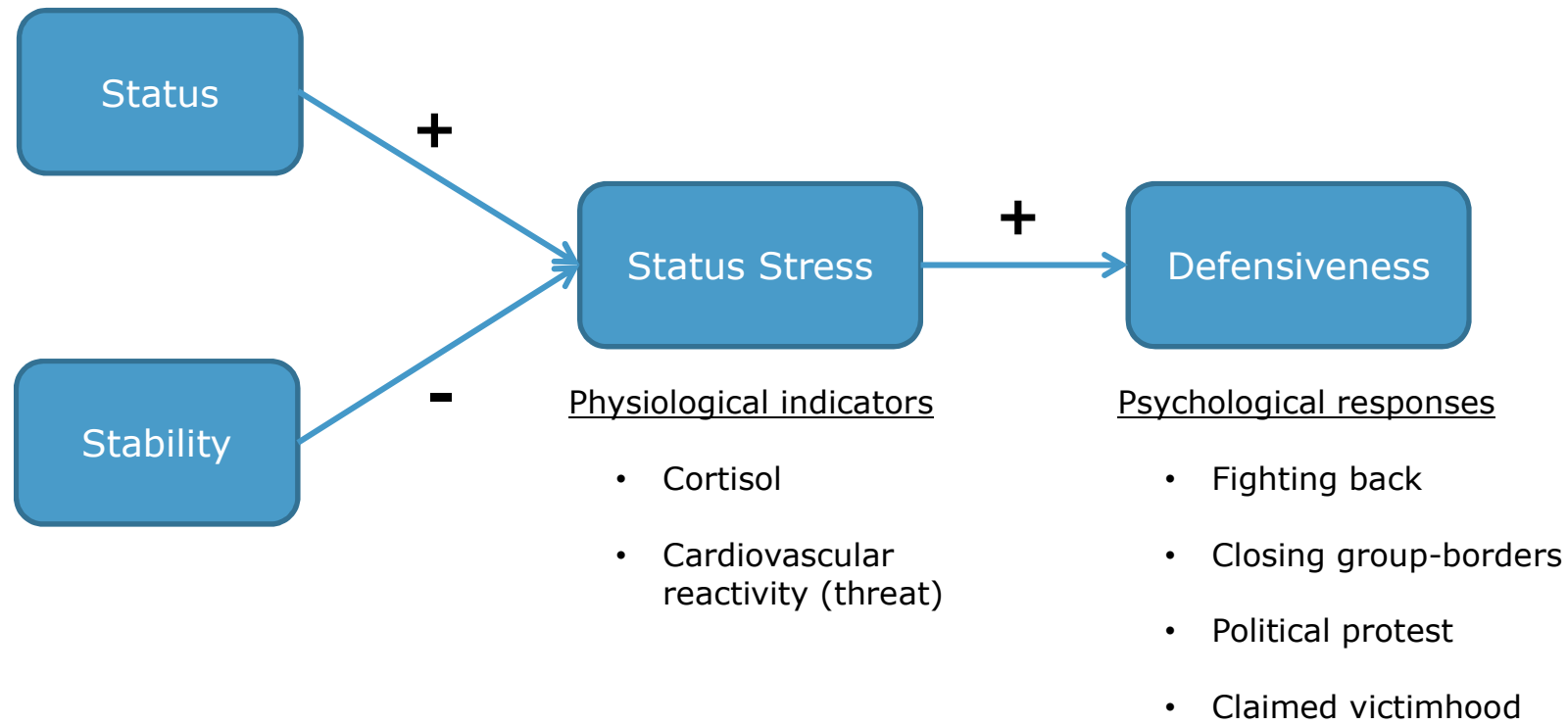
**Figure 1**

Table 1. Evidence for the Status Stress Hypothesis Among Different Types of Species, Hierarchy, and Rank

Species	Hierarchy based on	Rank based on	Main findings	Source
Animal studies	Intra-group context	Power	<ul style="list-style-type: none"> Diverse sources of instability within different type of primate groups leads to neuroendocrine (e.g., cortisol) response among those high in rank 	<ul style="list-style-type: none"> Sapolsky (2004; 2005)
Human	Interpersonal context	Power	<ul style="list-style-type: none"> Unstable dyadic task situations are stressful for the high power person (cardiovascular threat / cortisol response) 	<ul style="list-style-type: none"> Knight & Mehta (2017) Scheepers, Röell, & Ellemers (2015)
Human	Inter-group context	Status	<ul style="list-style-type: none"> Unstable or illegitimate group status is threatening for high-status group members (cardiovascular threat response) Stronger for high group-identifiers 	<ul style="list-style-type: none"> Scheepers & Ellemers (2005) Scheepers (2009; 2017)
Human	Social categories	Status / Power	<ul style="list-style-type: none"> Cues about changing gender and ethnic status relations within society are threatening for White men (cardiovascular threat response) 	<ul style="list-style-type: none"> Dover, Major, & Kaiser (2016) Scheepers, Ellemers, & Sintemaartensdijk (2009)