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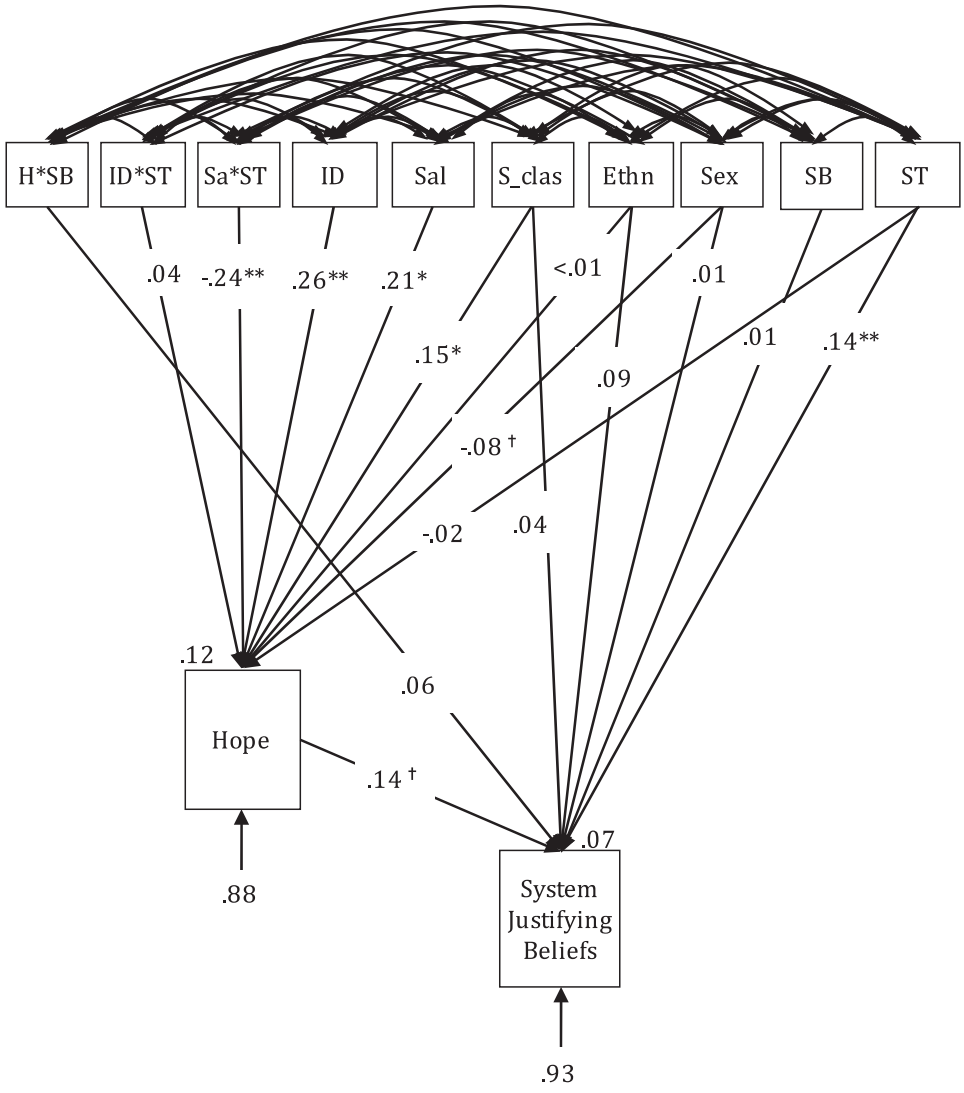

SOCIAL PSHYCOLOGY | RESEARCH ARTICLE

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Reactions to group devaluation and social inequality: A comparison of social identity and system justification predictions[i]

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Abstract: System justification theory (SJT) proposes that support for social inequality should be stronger among members of devalued groups than among members of higher status groups; that embracing the system in this way soothes anger and leads to a withdrawal of support for social change; and that these effects should occur when group interest is *weak*. We compared these SJT predictions with identity management and hope for group advancement accounts that we deduced from social identity theory (SIT) which suggest that both system justification and support for social change will be significant when group interest is *strong*. Consistent with the SIT-based accounts, Study 1 (N = 116, Malaysia, M_{age} = 19.09 years) showed that *strong* identifiers were more concerned about their in-group's reputation than weak identifiers, and that this concern increased system justification but only before an out-group audience to whom a need to present one's group in good light is normally strong. Study 2 (N = 375, Australia, M_{age} = 23.59 years) conceptually replicated Study 1's results and further revealed that strong identifiers justified the system due to the hope that their in-group status would improve in the future. Finally, Study 3 (N = 132, Germany, M_{age} = 20.34 years) revealed that system justification soothed anger and reduced support for social protest but only when group interest was *strong* (not weak). We did not find evidence in support of SJT predictions.

ABOUT THE AUTHORS

Chuma Kevin Owuamalam is an assistant professor of social psychology at the University of Nottingham (Malaysia campus). His work investigates how social perceptions influence emotions and the economic and strategic decisions of members of historically disadvantaged groups. His work is informed by the social identity and system justification theories. Mark Rubin is a senior lecturer in social psychology at the University of Newcastle, Australia. He is best known for his work on social identity and intergroup relations, including research on in-group identification, intergroup contact, perceived group variability and stereotyping.

Christian Issmer is a school psychologist in Düsseldorf, Germany. His is currently involved in the education of immigrants and refugees. Christian formerly held a research position at Philipps-University Marburg, where he worked on the current project. His interests are in aggression, social exclusion and meta-stereotypes.

PUBLIC INTEREST STATEMENT

"Twenty-eight percent of Hispanic Americans agreed with Trump's June statement that 'When Mexico sends its people, they're not sending their best. They're sending people that have lots of problems. They're bringing drugs. They're bringing crime. They're rapists.'" Why would Hispanic Americans agree with the proponent of a social system that disadvantages them? System justification theory provides a potential answer. It makes the distinctive prediction that people support and legitimize social systems—***system justification***—even when the system disadvantages them and especially when they are not concerned about their own group. The present research tested an alternative explanation for this system justification—that under some conditions, system justification actually helps ***maintain a positive group identity***. This paper reports supportive evidence for this hypothesis based on Chinese Malaysians, low and high status universities and disadvantaged youths on vocational training programmes.

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Subjects: Behavioral Sciences; Psychological Science; Social Psychology

Keywords: social inequity; group devaluation; social protest; social identity; system justification; reputation management

1. Introduction

> Members of disadvantaged groups should be more likely to engage in system justification when their group interests and identities are relatively *low* in salience. (Jost, Pelham, Sheldon, & Ni Sullivan, 2003, p. 17; our emphasis; see also Jost & Hunyady, 2002, p. 122)

Social identity theory (SIT; Tajfel & Turner, 1979) and system justification theory (SJT; Jost & Banaji, 1994) represent two mainstream accounts of group processes and intergroup relations. According to both theories, people who experience negativity towards their social groups are faced with two options: they can either (a) take action to challenge the system and attempt to change the status quo via various forms of social protest or (b) they can accept the status quo and cognitively justify and manage their negative group membership. Both theories assume that these orientations towards behavioural or cognitive reactions to group disadvantage are inversely related: people who engage in social protest should be less likely to cognitively justify their low group status, and people who justify their low group status should be less likely to engage in social protest. For example, SJT researchers have proposed that:

> Those who are disadvantaged are hypothesized to experience distress (including anger and frustration) because of the inequality to which they are subjected. Thus, the endorsement of system-justifying ideologies should be associated with (a) reduced emotional distress (especially moral outrage)..., as well as (b) a withdrawal of support for social change. (Jost, Ledgerwood, & Hardin, 2008, p. 186; see also Jost et al., 2012, p. 198)

Likewise, SIT researchers have proposed that the justification of group devaluation reduces the potential for intergroup conflict through "a collective repression of objective deprivation" (Tajfel & Turner, 1979, p. 45).

However, the agreement between SIT and SJT ends when it comes to the proposed moderating role of in-group identification and group interests on the justification of group devaluation. SIT researchers predict that people who identify strongly with devalued groups are *more* likely to cognitively justify their group's devaluation because they have the strongest motivation to ameliorate the effects of a negative social identity (e.g. Doosje, Ellemers, & Spears, 1999, p. 90). In contrast, SJT researchers predict that people who identify strongly with devalued groups are *least* likely to engage in system justification because their need for a positive social identity works against the motive to justify systems that are responsible for their group's devaluation (Jost & Hunyady, 2002). Hence, although SIT and SJT both assume that the justification of group devaluation is negatively related to social change motives, we deduced from SIT that *high* identifiers are more likely to engage in this justification, and SJT predicts that *low* identifiers are more likely to engage in this justification. Notably, the divergence in these SIT and SJT predictions should be more apparent when the intergroup status hierarchy is perceived to be relatively legitimate, rather than illegitimate, because the justification of disadvantage is more likely to occur under these conditions (Jost et al., 2012). The present research aimed to test these competing predictions.

1.1. System justification as an identity management strategy

Before continuing further, it is important to compare and contrast the justification processes that are put forward in SJT and SIT. SJT researchers describe the justification of group disadvantage as *system justification*, and they assume that it is more likely to occur when identification with the devalued group is relatively *low* because the justification is employed in the service of the social system rather than personal or social identity (Jost & Banaji, 1994). SJT's prediction that low identifiers are more likely to show system justification is based on an assumed conflict between social identity and

system justification motives in the case of devalued groups. As Jost, Banaji, and Nosek (2004) explained, "members of disadvantaged groups are likely to engage in social change only when ego justification and/or group justification motives overcome the strength of system justification needs and tendencies" (p. 887; see also Jost & Hunyady, 2002; Jost et al., 2003). In other words, the social identity motive is sufficiently weak among low identifiers to allow the system justification motive to manifest. In contrast, the social identity motive overrides the system justification motive for high identifiers, causing them to challenge the social system rather than justify it.

Contrary to SJT's proposal that a separate system-sustaining motive causes system justification, we put forward a more parsimonious view based on SIT that social identity motives cause system justification. In particular, we assume that people may use system justification as an *identity management strategy* to support their social identity, especially when intergroup status differences are perceived to be relatively legitimate and when in-group identification is relatively *high* (Turner & Reynolds, 2001). Our view is consistent with the concept of *social creativity* as expressed in the initial statements of SIT. For example, Tajfel and Turner (1979) explained that, "group members may seek positive distinctiveness for the ingroup by *redefining or altering the elements of the comparative situation*" (pp. 19–20, our emphasis). This quote illustrates that SIT does not preclude the possibility of system justification as a method of supporting social identity among the members of low status groups. In fact, Rubin and Hewstone (2004, p. 834) explicitly equated SIT's identity management strategies with SJT's concept of system justification and encouraged SJT researchers to provide evidence that the two concepts are distinct. To our knowledge, no such evidence has been provided. But how does justification of the social system as fair and legitimate help manage the negative social identity that derives from membership of devalued groups? We offer two complementary propositions based on SIT.

1.1.1. Proposition one

Extolling the openness and fairness of society can be a social creativity strategy utilized by members of low status groups to dispel potentially damaging views of their in-group (akin to the "reality constraint" caveat proposed by Spears, Jetten, & Doosje, 2001). For example, members of devalued groups may be conscious of being seen as whiny or ungrateful (Kaiser & Miller, 2001), especially if the prevailing societal norm disapproves of complaining (Klandermans & Van Stekelenburg, 2014). Consequently, a member of low status groups may engage in system justification in order to counteract the reputation costs of being viewed as "poor losers." This *group reputation management* view is consistent with the notion that members of low status groups are generally mindful of how they are viewed by outsiders (Sigelman & Tuch, 1997) and because these perceptions often translate into negative outcomes for their in-group (Brown, 1995), a motivation to escape such negativity should be strong (Shelton, Richeson, & Vorauer, 2006). It is also consistent with recent suggestions that "low status group members [...] might increase their justifying beliefs in order to reduce dissonance and *preserve their group and their self-image*" (Wiederkehr, Bonnot, Krauth-Gruber, & Darnon, 2015; p. 3; our emphasis). However, we reasoned that this reputation management motive should be particularly evident among strongly (not weakly) identifying group members because they have the strongest motive to manage their group's reputation (Doosje et al., 1999; see also Spears et al., 2001).

1.1.2. Proposition two

The act of hoping for future in-group enhancement may also explain why people justify a system that devalues their in-group. In particular, perceiving one's devalued group to belong to a fair and legitimate social system allows people to be realistic in their hope that the system will recognize the in-group's relative strengths in the future, even if it undervalues the in-group in the present. This position is supported by McCoy, Wellman, Cosley, Saslow, and Epel (2013, p. 308), who found evidence that "belief in meritocracy may pose a benefit to the self-esteem of members of low status groups because it is consistent with the perception that advancement is possible" (see also Zhang, Jetten, Iyer, & Cui, 2013). Like McCoy et al. (2013), we propose that system justification can, under certain circumstances, be enacted in the service of the self. However, we extend this argument from

the concept of individual self-esteem to collective self-esteem by considering the potential future advancement of the *group* rather than the *individual*.

Consistent with the principles of SIT, this group-based system justification should be stronger among high identifiers rather than low identifiers because high identifiers are more attuned to the need for collective self-esteem. Hence, we reasoned that high identifying members of devalued groups might believe that the social system is fair and legitimate (i.e. engage in system justification) because this belief allows them to engage in realistic hope for the future improvement of their group's status. After all, only a fair and legitimate social system would allow an originally low status group to rise up and become a relatively high status group. Furthermore, focusing on the in-group's high status in the future rather than its low status in the present provides a means of maintaining a positive social identity. Note that this *hope for future in-group enhancement* account of system justification is different to the original SJT position, which argued that "system-justification does not… [operate] in the service of protecting the interests of the self or the group" (Jost & Banaji, 1994, p. 10).

1.2. Overview of studies

We compared the foregoing predictions of SIT and SJT in three studies. Study 1 tested a reputation management account of SIT among Chinese Malaysians. Study 2 tested the hope for future in-group enhancement account among university students at an Australian University. Finally, Study 3 examined the behavioural consequences of system justification on anger and social protest among disadvantaged youths on a vocational training programme in Germany.

2. Study 1: Managing in-group reputation via system justification

Study 1 focused on group reputation management account of system justification. We reasoned that system justification in the service of social identity management should be particularly pronounced among members of low status groups when the societal reputation of their in-group is at stake, provided that such members are (a) strongly identified with their in-group, (b) strongly concerned about their in-group's reputation and (c) expressing their support for the system before an out-group that is viewed to be judgemental about the in-group's reputation (see Owuamalam & Rubin, 2014, for an extensive discussion).

We capitalized on the historically difficult intergroup relations between ethnic Chinese and Malays in Malaysian society in order to test our assumption that a sense of low social status motivates a social identity-based form of system justification. Although ethnic Chinese people in Malaysia (the minority group) are economically sufficient, the Malays (the majority group) dominate political power, which has been used to enact discriminatory policies that favour Malays at the expense of minority ethnic groups (Chin, 2009). Consequently, this particular intergroup context provided an opportunity to meaningfully manipulate a sense of group status among ethnic Malaysian Chinese people using a status priming procedure that is conceptually similar to van der Toorn et al.'s (2015, Studies 3 and 4) approach. That is, it would be believable for our Chinese participants to view themselves as being either high in status because they are economically powerful or low in status because they are politically powerless. According to van der Toorn et al. (2015), priming group status in this way enlists cognitive, affective and behavioural manifestations of status differences (see also Lammers, Gordijn, & Otten, 2008).

3. Method

3.1. Ethics

The experimental protocol described in this study was approved by the Faculty of Science Ethics Committee at the University of Nottingham's Malaysia Campus. All participants provided informed consent digitally via Qualtrics and were thoroughly debriefed after completing the experiment.

3.2. Participants and design

One-hundred and sixteen Malaysian Chinese students at the University of Nottingham's Malaysia Campus were randomly recruited on campus to participate in this study (48 men and 68 women, M_{age} = 19.09, SD_{age} = 2.86). Using a between-subjects design, we experimentally manipulated group status (high vs. low), group devaluation (salient vs. non-salient) and audience group membership (in-group vs. out-group). In-group identification (moderator) and system justification (dependent variable) were measured.

3.3. Materials and procedure

3.3.1. In-group identification

This was assessed using a six-item scale adapted from Schmitt, Branscombe, Kobrynowicz, and Owen (2002). Example items were: "I value being a Malaysian Chinese," "Being a Malaysian Chinese is important to my sense of who I am" and "I am proud to be a Malaysian Chinese." Participants responded using a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's α = .94, 95% CI = [.92, .95]).

3.3.2. Group status

Following the approach used by Lammers et al. (2008), we manipulated group status by exposing participants to word pairing primes that associated their ethnic Chinese in-group with either low or high social status. This part of the study was described as a memory experiment in order to disguise the experimental hypothesis. Participants were told that the word pairing activity would form the basis for a memory task that would follow after a series of distractor tasks (e.g. information about a donation appeal to a number of charitable organizations). On this basis, participants were asked to remember as many of the word pairings as possible.

In the low status condition (n = 57), the participants' in-group (Malaysian Chinese) was paired with adjectives that are related to low social status ("minor," "subordinate," "secondary," "powerless," "ordinary," "underprivileged" and "inferior"), while the out-group (Malaysian Malays) was paired with high status adjectives ("elite," "superior," "noble," "influential," "powerful," "privileged" and "supreme"). In the high status condition (n = 59), we reversed the pairings so that the in-group was paired with the high status descriptors and the out-group was paired with the low status descriptors. Each participant received one trial via PsychoPy (Peirce, 2007), and each category vs. descriptor pairing was presented on-screen for 2,000 ms followed by a fixation cross that appeared on-screen for 500 ms each time. We adjusted the location of the presentation of primes so that both the in-group and out-group labels had the same chance as the status descriptors of appearing at the bottom, top, left or right sides of the screen. The presentation of the category and status descriptor primes was randomized in order to control for any order effects.

We assessed the effectiveness of this status manipulation in two ways: first, participants provided ratings of their Malaysian Chinese in-group's social status (1 = *low status*, 6 = *high status*), and we used this data to test whether our manipulation shifted their subjective evaluation of their in-group's social status. Second, we assessed a more diffuse sense of social power using an eight-item measure of social dominance orientation (SDO; Sidanius & Pratto, 1999; e.g. "It is probably a good thing that certain groups are at the top and other groups are at the bottom" 1 = *strongly disagree*, 7 = *strongly agree,* Cronbach's α = .88, 95% CI = [.85, .91] see Appendix A for a full list of items). We expected that participants who were assigned to the high group status condition should report greater social dominance than those assigned to low group status condition (Galinsky, Gruenfeld, & Magee, 2003).

3.3.3. Audience

Next, we manipulated audience group membership using a mere exposure paradigm that was similar to the approach used by Hopkins et al. (2003). Specifically, we exposed participants to a research assistant who was either a Malaysian Chinese in-group member (n = 58) or a Malaysian Malay

out-group member (n = 58). We instructed participants to contact this research assistant if they had any specific queries relating to the study. We used this mundane approach to be sure that our manipulation closely matched the intended phenomenon in the real world.

3.3.4. Group devaluation

SJT assumes that members of low status groups justify the system due to an *awareness* of their group's devaluation (see pp. 5–6) because under such circumstances, the need to cognitively justify and live with the status quo should be strong. Thus, in addition to our status manipulation, we also manipulated participants' awareness of their group's devaluation using a similar thought-activation paradigm to that described by Branscombe (1998; see also Owuamalam & Zagefka, 2011). In a salient devaluation condition (n = 58), participants were asked to focus on the negative impressions that Malays have of the Chinese in-group, and in a non-salient devaluation condition (n = 58), participants were asked to focus on the positive views that they expected Malays to have of the Chinese in-group. To assess the effectiveness of this manipulation, we asked participants to indicate how favourable and positive they thought Malaysian Malays' views of Malaysian Chinese people would be on a seven-point scale (1 = *extremely unfavourable* [*negative*], 7 = *extremely favourable* [*positive*], r = .68, p < .0001).

3.3.5. Group reputation concern

This was measured using a three-item scale adapted from Hornsey and Imani (2014): "When I feel that someone has a negative view of Chinese Malaysians, I can get quite upset." (see Appendix A for a full list). Participants responded to these items using a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's α = .71, 95% CI = [.61, .79]). A principal component analysis with Varimax rotation showed that this variable was empirically distinguishable from our group identification measure. There was a clear two-component solution, with items on each measure loading strongly on the corresponding factor (factor loadings > .71).

3.3.6. System justification

Sengupta, Osborne, and Sibley (2014) suggested that measures of system justification should relate directly to the intergroup status hierarchy in question. Based on this recommendation, we assessed system justification using items that assessed justification in relation to (1) the economic system and (2) the political class system because each of these status dimensions underlies the historically difficult relations between Malay Malaysians and Chinese Malaysians. Specifically, participants indicated their levels of agreement with the following two statements: "Overall, economic positions are legitimate reflections of people's achievements" (Kay & Jost, 2003) and "Generally, social class differences reflect differences in the natural order of things" (Jost & Hunyady, 2005). Participants responded to these two items using a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*; r = .32, p < .0001).

4. Results

4.1. Manipulation checks

To establish the effectiveness of our group status and group devaluation manipulations and to show that they manipulated the independent variables, we performed a 2 (group status: high/low) x 2 (group devaluation: salient/non-salient) MANOVA on participants' ratings of their in-group status, social dominance orientation and perceived group devaluation. There was a significant main effect of status on participants' ratings of their in-group's status, F[1, 112] = 7.67, p = .007, $\eta_p^2 = .06$: participants in the high status condition rated their in-group significantly higher in status (M = 4.28, SE = .12) than participants in the low status condition (M = 3.81, SD = .12). Importantly, group devaluation (F[1, 112] = 1.14, p = .288, $\eta_p^2 = .01$) and its interaction with status (F[1, 112] = .02, p = .877, $\eta_p^2 < .0001$) did not have an effect on in-group status ratings. There was also a significant main effect of group status on social dominance orientation, F(1, 112) = 4.54, p = .035, $\eta_p^2 = .04$ ($M_{\text{high status}}$ = 3.30, $SE_{\text{high status}}$ = .15; $M_{\text{low status}}$ = 2.83, $SE_{\text{low status}}$ = .16). Again, this effect was not qualified by group devaluation, F(1, 112) = .10, p = .751, $\eta_p^2 = .001$, or its interaction with status, F(1, 112) = .07, p = .792, $\eta_p^2 = .001$.

Our results also showed a main effect of group devaluation on perceived group devaluation, $F(1, 112) = 4.14$, $p = .044$, $\eta_p^2 = .04$: perceived group devaluation was more pronounced when group devaluation was salient ($M = 2.80$, SE = .08) than when it was non-salient ($M = 3.03$, SE = .08). Again, neither group status ($F[1, 112] = .003$, $p = .955$, $\eta_p^2 < .0001$) nor its interaction with group devaluation ($F[1, 112] = .17$, $p = .681$, $\eta_p^2 = .04$) had any significant effect on perceived group devaluation. In short, our manipulations of group status and perceived group devaluation had independent and separate effects on their corresponding measured variables.

4.2. Main analyses

We assumed that (a) group reputation concerns are stronger before an out-group rather than an in-group audience (see also Klein & Azzi, 2001), (b) such concerns are stronger among high identifiers when group devaluation is salient (see also Owuamalam & Rubin, 2014) and (c) such trends are stronger when in-group status is low (see Owuamalam & Rubin, 2014). Provided that these assumptions are met, our in-group reputation management explanation of system justification predicted that (d) concerns over in-group reputation are associated with increased system justification and (e) this effect is strongest when the out-group (rather than the in-group) is privy to one's endorsements. To test our assumptions regarding group reputation concern, we performed an ANCOVA in which the interactive influence of three fixed factors (group devaluation, status and audience) and one covariate (identification) was examined in relation to group reputation concern. To test our predictions regarding system justification, we conducted a moderated regression in which the relationship between group reputation concern and system justification was contingent upon the interactive effects of status and audience.

4.2.1. Group reputation concern

There was a main effect of identification on concerns for the in-group's reputation, $F(1, 100) = 21.83$, $p < .0001$, $r = .41$: the stronger participants' in-group identification, the more concerned they were about their in-group's reputation. None of the other main effects emerged as significant ($ps > .10$). There was a three-way interaction between group devaluation, status and audience, $F(1, 100) = 3.96$, $p = .049$, $\eta_p^2 = .04$. However, this effect was further qualified by identification, $F(1, 100) = 4.40$, $p = .038$, $\eta_p^2 = .04$. We therefore unpacked this latter interaction by estimating the simple effect of audience on group reputation concern within each level of status and group devaluation when identification was high ($M + 1SD$) and low ($M - 1SD$; Aiken & West, 1991).

4.2.1.2. High identifiers. A simple main effect of audience on group reputation concern emerged when status was low and group devaluation was salient, $F(1, 100) = 5.23$, $p = .024$, $\eta_p^2 = .05$: consistent with our assumptions, high identifiers' concern about their in-group's reputation was stronger before an out-group audience ($M = 5.92$, SE = .35) than before an in-group audience ($M = 4.77$, SE = .36). This audience effect did not occur for high identifiers when group status was low and group devaluation was non-salient, $F(1, 100) = .38$, $p = .379$, $\eta_p^2 = .01$. Similarly, there were no significant audience effects for high identifiers when group status was high either when group devaluation was salient, $F(1, 100) = .09$, $p = .760$, $\eta_p^2 = .001$, or when group devaluation was non-salient, $F(1, 100) = .13$, $p = .720$, $\eta_p^2 = .001$.

4.2.1.3. Low identifiers. Interestingly, a simple main effect of audience on group reputation concern emerged when group status was low and group devaluation was *non*-salient, $F(1, 100) = 7.76$, $p = .006$, $\eta_p^2 = .07$: under these conditions, low identifiers indicated stronger concern over their in-group's reputation before an out-group audience ($M = 4.50$, SE = .28) compared to an in-group audience ($M = 3.13$, SE = .41). This audience effect did not occur for low identifiers when group status was low and group devaluation was salient, $F(1, 100) = .88$, $p = .351$, $\eta_p^2 = .01$. Also, there were no significant audience effects for low identifiers when group status was high and group devaluation was either salient, $F(1, 100) = .72$, $p = .399$, $\eta_p^2 = .01$, or non-salient, $F(1, 100) = 1.24$, $p = .268$, $\eta_p^2 = .01$.

In summary, group reputation concerns were stronger for *high* identifiers when group status was low and group devaluation was *salient* and for *low* identifiers when group status was low and group devaluation was *non-salient*. So, although reputational concerns are evident among low identifiers, it crucially was not linked to their awareness of group devaluation. The next analysis focused on the association between reputation concerns and system justification when group members consider both the audience and their group's social status.

4.2.2. System justification

Results from a group reputation concern x group status x audience moderated regression revealed a significant positive relationship between group reputation concerns and system justification, β[1] = .37, SE = .08, $p < .0001$: consistent with our social identity reputation management explanation of system justification, the more concerned group members were about their in-group's reputation, the more strongly they reported their support for the social system. This relationship was qualified by audience, $\beta = .46$, SE = .17, $p = .007$: the positive link between reputation concern and system justification was only significant before an out-group audience, $\beta = .59$, SE = .12, $p = .0001$, and not before an in-group audience, $\beta = .07$, SE = .12, $p = .574$. Importantly, this two-way interaction was further qualified by status, $\beta = .78$, SE = .33, $p = .020$. An examination of the group reputation concern x audience interaction within each level of group status revealed a disordinal pattern of results across the low and high status conditions. The two-way interaction was significant in the low status condition, $\beta = .86$, SE = .23, $p = .0003$, but not in the high status condition, $\beta = .08$, SE = .24, $p = .751$. In the low status condition, group reputational concerns only predicted system justification among participants when the audience was the out-group, $\beta = .68$, SE = .18, $p = .0003$, and not when the audience was the in-group, $\beta = -.18$, SE = .15, $p = .223$ (see Figure 1(a)). In the high status condition, group reputation concerns predicted system justification both when the audience was the in-group, $\beta = .44$, SE = .18, $p = .015$, and when it was the out-group, $\beta = .52$, SE = .15, $p = .001$ (see Figure 1(b)).

To summarize, the present results indicate that group interests—in the shape of people's concerns over their in-group's reputation—predict system justification. Specifically, highly identifying members of low status groups were more likely to be concerned about their group's reputation when group devaluation was salient to them. This concern about the in-group's reputation predicted system justification tendencies, and these tendencies were stronger before an audience comprised of the higher status out-group for whom a "show" of support for the system could potentially forestall image-tarnishing accusations of collective petulance (see Owuamalam & Zagefka, 2013 for a similar discussion).

5. Study 2: Status stability, hope and system justification

Both SJT and SIT predict that system justification should occur when the intergroup status system is perceived to be relatively stable, at least in the short term. While accepting this point, we also believe

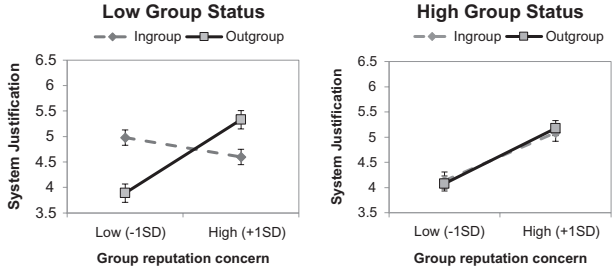

Figure 1. The relationship between reputational concern and system justification for low (a) and high (b) status conditions, when the audience was either in-group (dashed lines) or out-group (solid lines).

that system justification that is based on hope for future in-group status is likely to be more pronounced when the system is perceived to be stable in the short term but unstable in the longer term. Under such conditions, in-group members (particularly high identifiers) should perceive there to be little hope of changing the status hierarchy via social action in the present, but a greater potential for the in-group to enhance its outcomes within a legitimate status system in the future (see also Wiederkehr et al., 2015). Although Maitner (2015) did not examine the role of identification, her evidence supports our position, and shows that system justification motives thrive when a prevailing system is perceived to be negotiable (i.e. longer term instability). Hence, in Study 2, we experimentally manipulated the long-term stability of the social system in order to observe its effects on participants' hope for future in-group status.

We also took the opportunity in the current study to untangle identity salience from in-group identification. If expectations of future group advancement are necessary to enact system justification, then one might expect longer term instability of the status boundaries to produce stronger system justification, particularly when social identity salience is high (not low) and ties to the in-group are strong (not weak).

6. Method

6.1. Ethics

This study received approval from the Human Research Ethics Committee of the University of Newcastle, Australia. All participants provided informed consent digitally via an online survey.

6.2. Participants and design

Participants comprised a convenience sample of 375 undergraduate psychology students at the University of Newcastle, Australia, who were recruited online via Survey Monkey (78 were men, 297 were women; M_{age} = 23.59 years, SD_{age} = 7.96 years). In terms of ethnic composition, 90.7% were Caucasian, 2.1% Aboriginal, .3% African, 1.9% Asian and 4% did not disclose their ethnicity.

6.3. Procedure and materials

The study was titled "Students' Perceptions of the Australian University Ranking System" and it was presented via Survey Monkey.

6.3.1. Group identification

We aimed to heighten a sense of in-group identification by accentuating the salience of participants' in-group identification. Specifically, in the high identification condition, participants were instructed that:

> We want to find out how you feel about the University of Newcastle. Please use the space below to write down (a) the ways in which the University of Newcastle is important to you, (b) the ways in which you feel similar to other students at the University, and (c) the ways in which you feel a bond with other students at the University.

In the low identification condition, participants read that:

> We want to find out how you feel about certain people in your life. Please use the space below to write down (a) the ways in which your grandparents are important to you, (b) the ways in which you feel similar to your grandparents, and (c) the ways in which you feel a bond with your grandparents.

To measure the effectiveness of this manipulation, we assessed participants' levels of in-group identification using a six-item measure adapted from Cameron (2004). An example item is "Being a Newcastle University student is an important part of my self-image" (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's α = .87, 95% CI = [.84, .89], see Appendix A for a full item list).

6.3.2. Group status

We manipulated status by asking participants to engage in either an upward or a downward inter-group comparison relative to another Australian university (see Jost & Burgess, 2000, Study 1 for a similar approach). In the low status condition, participants were told that a relatively higher status university (the Australian National University; ANU) scored higher on three indices used to rank universities in Australia. The three indices were "university reputation and prestige;" "course satisfaction of graduates;" and "graduate salaries, employment and further study." In the high status condition, the comparison related to a lower status university: Southern Cross University (SCU). To reinforce this manipulation, participants in the low status condition were told that the higher status out-group (ANU) was ranked 1st out of 39 Australian universities and the in-group (Newcastle) was ranked 21st out of the 39 universities. In the high status condition, the in-group's ranking was the same but that the out-group's (SCU) ranking was worse at 39th place. To determine the efficacy of this manipulation, participants completed an eight-item perceived status measure. An example item is "The University of Newcastle is a relatively prestigious university" (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's α = .85, 95% CI = [.83, .87], see Appendix A for a full item list).

6.3.3. Long-term status stability

Next, we manipulated participants' perceptions of the stability of Australian university rankings over the long term. In a low stability condition, participants were told that "there is a fair degree of variability in [the ranking system's] rankings from year to year. Some universities move up and down several places depending on their annual performance." In a high stability condition, participants were informed that "rankings remain fairly stable across the years, and that very few universities increase or decrease their rankings substantially from year to year." The effectiveness of this manipulation was examined using a four-item scale. An example item is "The Australian University Rankings system is quite reliable, and ranking positions don't change much from one year to the next" (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's α = .78, 95% CI = [.74, .81], see Appendix A for a full item list).

6.3.4. Identity salience

This was measured using a six-item scale. Example items are "At the moment, I am quite conscious of being a Newcastle University student;" and "At the moment, my identity as a Newcastle University student is very clear to me." Responses were made on a seven-point scale (1 = *strongly disagree*; 7 = *strongly agree*, Cronbach's α = .77, 95% CI = [.74, .81], see Appendix A for a full item list). Note that these items and other questions relating to the students' university identity are likely to heighten the salience of their university identity. However, we were interested only on the relative strength of this salience rather than a comparison of the absolute absence vs. presence of identity salience so that our test is more in keeping with SJT predictions (see our opening quote).

6.3.5. Hope for future in-group status

This was measured using a nine-item scale. Example items are "In the future, it is likely that the University of Newcastle will have a better status than it does now;" "I have a feeling that the University of Newcastle's academic reputation will improve over time;" and "By the time I'm looking for a job, the University of Newcastle will be better ranked among Australian universities" (1 = *strongly disagree*; 7 = *strongly agree*, Cronbach's α = .95, 95% CI = [.94, .95], see Appendix A for a full item list).

6.3.6. System justification

To avoid any ambiguity over differences in the type of scale used, we used a composite measure comprising four versions of system justification scales (a) Rubin, Badea, and Jetten's (2014) eight-item system legitimacy scale (Cronbach's α = .87, 95% CI = [.85, .89]); (b) O'Brien, Major, and Gilbert's (2012) nine-item measure of system justification beliefs (Cronbach's α = .75, 95% CI = [.71, .78]); (c) Kay and Jost's (2003) six-item measure of system justification (α = .84, 95% CI = [.81, .86]); and (d) Lucas, Zhdanova, and Alexander's (2011) four-item Belief in a Just World measure (Cronbach's

α = .81, 95% CI = [.77, .84]). Responses on these scales were collected on a seven-point scale (1 = *strongly disagree*; 7 = *strongly agree*). The composite scale comprising the four versions of system justification measures was reliable (Cronbach's α = .87, 95% CI = [.85, .89], the full item list for each scale is shown in Appendix A).

7. Results and discussion

7.1. Manipulation checks

To demonstrate that our status manipulation was effective, we computed an independent *t*-test on the perceived group status measure. As expected, participants in the high status condition (M = 4.95, SD = .88) perceived their university to be higher in status compared to those in the low status condition (M = 4.74, SD = .78), $t(373) = 2.45$, $p = .015$, Cohen's $d = .25$.

To be sure that our manipulation of long-term status stability was equally effective in the low and high status groups, we performed separate independent *t*-tests to assess the effect of status stability on participants' perceived stability of the university ranking status system. In the low status condition, participants exposed to the unstable status information perceived the ranking system to be more unstable (M = 5.00, SD = .82) than those in the stable condition (M = 3.94, SD = .98), $t(187) = 8.12$, $p < .0001$, Cohen's $d = 1.17$. Similarly, in the high status condition, participants in the unstable status condition perceived the status system to be more unstable in the longer term (M = 5.12, SD = .99) than those in the stable condition (M = 3.87, SD = 1.10), $t(184) = 8.12$, $p < .0001$, Cohen's $d = 1.20$.

We also examined the effectiveness of our manipulation of group identification on reported levels of identification in the low and high status conditions. The manipulation was not effective in shifting identification levels in either the low status condition, $t(187) = 1.73$, $p = .086$, or the high status condition, $t(187) = 1.80$, $p = .074$. For this reason, we excluded the manipulated index of identification from further analyses and instead used the measured levels of in-group identification.

7.2. Main analyses

7.2.1. The effect of long-term status stability

To examine the interactive effect of group status stability and group status on system justification and the roles that identification and identity salience play in this, we performed a four-way ANCOVA comprising these variables. Corroborating Brandt (2013), we found a null effect of group status on system justification, $F(1, 359) = .864$, $p = 352$, $\eta_p^2 = .002$: participants in the high status condition were no more likely than their lower status counterparts to justify the system. Of particular interest, there were three-way interaction effects of status stability, group status and identity salience, $F[1, 359] = 4.76$, $p = .030$, $\eta_p^2 = .013$, and status stability, group status and identification, $F[1, 359] = 3.76$, $p = .053$, $\eta_p^2 = .010$, on system justification. However, these interaction effects were further qualified by a significant four-way interaction, $F(1, 359) = 5.30$, $p = .022$, $\eta_p^2 = .015$. To understand these interactions, we first decomposed each of the two three-way effects by estimating the interactive effects of (a) status stability and identification and (b) status stability and identity salience on system justification separately for low and high status groups. After this, and within each of the two status conditions, we explored whether the combined effects of identification and identity salience further qualified an effect of status stability on system justification.

7.2.1.1. Low status condition. As expected, the effect of status stability, $F(1, 185) = 5.40$, $p = .021$, $\eta_p^2 = .028$, was qualified by a significant status stability x identification interaction, $F(1, 185) = 6.72$, $p = .010$, $\eta_p^2 = .035$. Simple effect analysis revealed, as predicted, that this interaction occurred because high identifiers (M + 1SD) justified the system more when the status system was unstable (M = 4.29, SE = .10) rather than stable (M = 3.98, SE = .09), $p = .020$. This effect was absent for low identifiers (M − 1SD), $p = .188$.

When we repeated the same analysis, this time involving identity salience, we found a status stability x identity salience effect, $F(1, 185) = 6.04$, $p = .015$, $\eta_p^2 = .032$. Consistent with our theorizing, when identity salience was high (M + 1SD), members of low status groups justified the system more strongly when status was unstable ($M = 4.29$, SE = .10) rather than stable ($M = 4.29$, SE = .10), $p = .020$. This status stability effect did not emerge when identity salience was low (M − 1SD), $p = .264$. Neither the status stability x identification interaction effect nor the status stability by identity salience interaction effect was further qualified by the three-way effect involving status stability, identification and identity salience ($p = .413$).

7.2.1.2. High status condition. None of the two-way effects reported for the low status condition were significant in the high status condition ($ps > .10$). Although the three-way interaction between status stability, identification and identity salience was significant, $F(1, 178) = 5.20$, $p = .024$, $\eta_p^2 = .028$, the only simple effect of status stability on system justification that was close to being reliable occurred when identification with the in-group was *low* and identity salience was high, $F(1, 178) = 3.61$, $p = .059$, $\eta_p^2 = .020$: for such group members, system justification was stronger when the status system was perceived to be unstable ($M = 4.66$, SE = .25) rather than stable ($M = 4.07$, SE = .19). Hence, this result was more supportive of predictions derived from SIT than SJT.

7.2.2. The mediating role of hope

Recall that we proposed that hope for future in-group advancement drives system justification among strongly identifying low status members, particularly when in-group advancement is possible (i.e. the intergroup status system is unstable in the long term). To test this prediction, we specified a conditional process model in which the interactive effects of group status x identification and group status x identity salience predicted system justification (outcome) via hope for future improvement (mediator). To provide a more powerful and incisive test of status effects that are uncontaminated by other salient social hierarchies, we included age, gender, social class and ethnicity as control variables. First, we specified a fully saturated model in which the main effects of identification and identity salience and their interactive effects with status stability were included in the model. We then compared this model with a more parsimonious fully mediated model in which the direct effects of identification and identity salience on system justification together with their interactive effects with status stability were excluded (see Figure 2). These analyses were performed using the maximum likelihood estimation in MPlus version 6 (Muthén & Muthén, 1998–2011). The predicted fully mediated model fitted the data well, $\chi^2(4) = 4.29$, $p = .369$, CFI = .999, RMSEA = .014, SRMR = .007, and was better than the saturated model as indicated by its smaller AIC = 9,051.93 value compared to AIC = 9,055.64 for the saturated model (ΔAIC = 3.71). We therefore derived specific indirect effects of interest from our hypothesized fully mediated model.

First, we examined the simple indirect effects from identification and identity salience on system justification via hope with 1,000 bootstrap re-samples. None of the estimates for these two simple indirect effects emerged significant ($\beta_s \leq .022$, $SE_s \geq .023$). This null effect may have resulted because both status conditions were conflated in this analysis. We therefore calculated the conditional indirect effects of identification and identity salience within each status condition and examined whether the effects of interest were significant in the stable vs. unstable status conditions.

7.2.2.1. Low status condition. Consistent with our SIT-based predictions, higher levels of identification were associated with stronger justification of the ranking system via hope for in-group advancement only when the status ranking system was unstable in the long term, $B = .04$, SE = .02, 95% CI = [.007, .086], and not when it was stable in the long term, $B = .02$, SE = .02, 95% CI = [.000, .057]. Similarly, high degrees of identity salience predicted stronger justification of the ranking system due to hope that the in-group would improve its ranking position in the future, but only when the ranking system was unstable, $B = .04$, SE = .02, 95% CI = [.007, .095], and not when it was stable, $B = .02$, SE = .02, 95% CI = [−.001, .065].

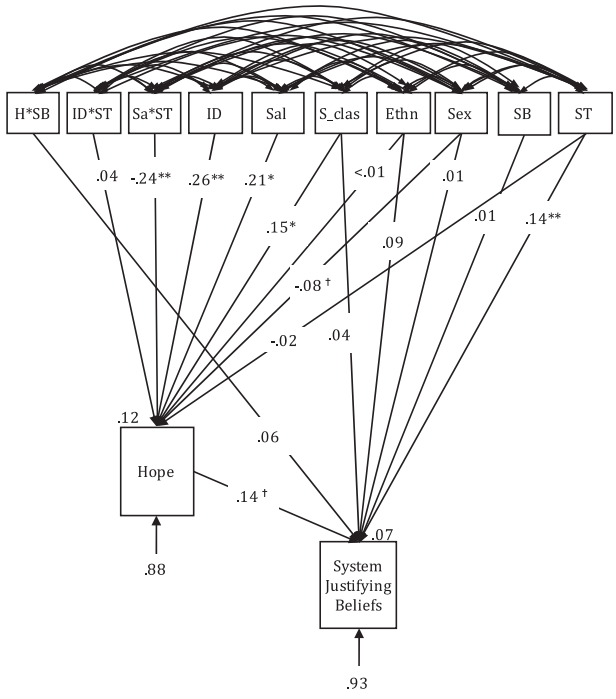

Figure 2. Statistical model for the interactive effects of group status and identification on system justification via hope for future in-group enhancement when group status is stable or unstable.

Notes: Standardized bootstrapped regression coefficients are reported. R-squares are presented above outcome variables. †, * & **p < .10, .5 and .01 respectively.Key: ID = identification; Sal = identity salience; SB = status system stability, 0—stable, 1—unstable; ST = group status, 0—low status, 1—high status; Ethn = ethnicity; Sex = 1—men, 2—women; H*SB = hope*status system stability; ID*ST = identification*group status; Sa*ST = identity salience*group status; and s_clas = social class. All continuous predictors were mean centred prior to generating the interaction terms.

7.2.2.2. High status condition. Similar to the situation in the low status condition, in the high status condition, stronger levels of identification with the high status in-group were associated with stronger system justification of the ranking system and this effect was reliably explained by hope, but only when the ranking system was unstable, B = .04, SE = .02, 95% CI = [.012, .091], rather than stable B = .03, SE = .02, 95% CI = [−.003, .068]. However, the salience of high status identities did not reliably predict the hope-induced system justification, either in the unstable status condition, B = −.02, SE = .02, 95% CI = [−.077, .006], or the stable status condition, B = −.01, SE = .01, 95% CI = [−.055, .003].

Note that the above effects were reliable even when we excluded the control variables or accounted for participants' perceived awareness of the research hypotheses (PARH) using Rubin, Paolini, and Crisp's (2010) PARH scale.

Next, we tested an alternative SJT model in which the paths from identification and identity salience to hope and then the paths from hope to system justification were fixed to zero. According to SJT, system bolstering does not operate in the service of personal or group interests and, therefore, strong system-justifying endorsement when identification is weak or when identity salience is low should be unrelated to hope for future in-group advancement, and this hope, in turn, should be unrelated to system justification. This alternative SJT model did not fit the data well, $\chi^2(7) = 38.77$, p < .0001, CFI = .867, RMSEA = .110, SRMR = .029, AIC = 9080.41, and was sufficiently poorer compared the hypothesized model $\Delta\chi^2(3) = 34.48$, p = .001, ΔAIC = 24.77.

7.3. What about the neo-system justification status–legitimation caveat?

Of course, it is possible that the current use of a composite system justification measure may be biased against SJT, and that the effects one might expect among low identifiers would emerge when one uses the single-item status fairness measure suggested by Sengupta et al.'s (2014) legitimation caveat. Thus, we re-ran our mediated model, this time using Sengupta et al.'s single-item specific system justification measure that is tied to the fairness of the current status context ("In general the Australian University Rankings system is fair"). Results from this analysis were identical to the ones that we reported previously: high (but not low) identifying members of low status groups (B = .05,

SE = .03, 95% CI = [.005, .141]) and high status groups (*B* = .04, SE = .03, 95% CI = [.001, .098]) were more likely to justify the system because they hoped for a better future for their in-group and these effects were significant only when the status ranking system was perceived to be unstable in the long term. A similar pattern emerged when identification was substituted with identity salience in the model. This time, increased identity salience predicted system justification via hope for members of low status groups when the ranking system was unstable, *B* = .06, SE = .04, 95% CI = [.008, .146], but not when it was stable, *B* = .05, SE = .03, 95% CI = [−.002, .131]. No reliable effects emerged for the high status group.

In summary, Studies 1 and 2 supported our two social identity-based explanations of system justification. Study 1 showed that group reputation management predicted system justification, especially when group interests were high due to the presence of an out-group audience. Study 2 found that hope for future in-group status improvement predicted system justification, especially when group interests were high due to high group identification or identity salience and the conditions were right, as represented by an unstable intergroup status hierarchy. However, it should be noted that the effect sizes for both explanations are relatively modest (*R*-squared values: group reputation management: 24%; hope for future in-group status: 7%). Thus, it is entirely possible that other accounts of system justification beyond the identity management and hope for future in-group status accounts are possible.

8. Study 3: Group devaluation, system justification and protest

Studies 1 and 2 tested and found evidence for our SIT-derived explanations of system justification. However, neither study considered the more distal effect of system justification on collective action. In other words, neither study considered the real-world implications for system justification on intergroup behaviour. Study 3 addressed this issue by testing Jost et al.'s (2004) prediction that system justification should be stronger among *low* identifiers than *high* identifiers, and that this system justification should have a soothing effect on anger about group disadvantage which should then *lower* an orientation towards social protest (see pp. 5–6). Jost et al. (2012) found evidence in support of this prediction. However, they did not consider in-group identification as a potential *moderator* of the effect of salient group devaluation on system justification. We addressed this issue in the current study by examining whether the negative indirect effect of group devaluation on anger via system justification varied as a function of in-group identification. According to SJT, this palliative effect should be stronger for *low* identifiers than for *high* identifiers because low identifiers have less of an internal conflict between accepting the system and relinquishing their group-based anger. However, according to SIT, the palliative effect should be stronger for *high* identifiers than for *low* identifiers because high identifiers have a stronger social identity motive to reinterpret the system in order to protect their social identity.

We also followed Jost et al.'s (2012) research paradigm in this study by exploring the relationship between system justification and social protest. Jost et al. found that system justification was negatively related to social protest against group devaluation. As discussed earlier, this finding is consistent with both SIT and SJT because both theories assume that justification of group devaluation should demobilize behavioural challenges against such devaluation. Again, however, the two theories diverge when it comes to the moderating role of in-group identification. SJT predicts that this demobilization effect should be stronger among *low* identifiers because they are less likely to experience a conflict between opposing system justification and social identity motives. In contrast, SIT predicts that demobilization should be stronger among *high* identifiers because they have the strongest motive to protect their social identity, and the use of identity management strategies that achieve this goal reduce the motivation to use more socially risky behavioural strategies (cf. our Study 1).

Following Jost et al. (2012), we distinguished between normative and non-normative social protest. Normative social protest refers to actions that are taken within the normative constraints of the social system (e.g. signing a petition). In contrast, non-normative social protest refers to actions that

are less normal and often intended to disrupt the social system (e.g. rioting). Jost et al. (2012) found an indirect negative effect of system justification on normative social protest via anger while its corresponding indirect effect on non-normative protest was not significant.

To examine these predictions, we focused on a low status group within a largely uncontested intergroup status system—educationally disadvantaged young people in vocational training in Germany (Solga, 2002)—because it presents the most diagnostic test of the diverging predictions of SIT and SJT. To be part of this group, students would have demonstrated that they did not meet the intellectual requirements to succeed at university.

9. Method

9.1. Ethics

This study was conducted in accordance with the recommendations of the ethics guidelines for researchers of DGPs (Deutsche Gesellschaft für Psychologie—German Society for Psychology) and BDP (Berufsverband Deutscher Psychologinnen und Psychologen—Professional Association of German Psychologists). All participants provided verbal consent to take part. Additionally, we obtained written consent from parents of participants who were slightly under the age of formal consent at the time of recruitment.

9.2. Participants and design

A convenience sample of 132 young people who attended pre-vocational education schemes in Germany were recruited from their learning centres (65 were men, 67 were women; M_{age} = 20.34, SD_{age} = 3.43). Of this number, 30 did not have a school-leaving qualification, 91 possessed the lowest school-leaving qualification in the German-stratified school system ("Hauptschulabschluss") and 10 possessed the second lowest qualification ("Realschulabschluss"). Recruitment took place at two comparable institutions (named *Bildungsgänge zur Berufsvorbereitung* BvB and *Berufsausbildung in ausserbetrieblichen Einrichtungen* BaE, respectively).

We used a between-subjects design in which group devaluation was manipulated and identification (moderator) was measured prior to the manipulation. System-justifying beliefs (mediator), anger (mediator) and normative as well as non-normative social protest (outcome variables) were measured after the manipulation.

9.3. Procedure and materials

Participants were told that the study was about "attitudes and perceptions of different social groups in society." They then completed the following measures in the following order.

9.3.1. Group identification

Participants completed a four-item scale of affect-based identification in relation to their BvB/BaE group membership. Example items were "I am proud to be part of the BvB/BaE programme" and "Being part of the BvB/BaE course is a positive experience" (back-translated from German to English by a native speaker, 1 = *strongly disagree*, 6 = *completely agree*; Cronbach's α = .91, 95% CI = [.88, .93]).

9.3.2. Group devaluation

We manipulated salient group devaluation using the thought-activation paradigm described in Study 1. In a salient group devaluation condition (n = 67), participants focused on the negative views that mainstream society holds about people affiliated to the BvB/BaE programme. In a non-salient group devaluation condition (n = 65), participants focused on the positive views that society holds of people affiliated to the BvB/BaE programme. To assess the effectiveness of this manipulation, we asked two independent judges to rate the content of participants' written reflections on a seven-point positivity scale (−2 = *negative*, 0 = *neutral*, or 2 = *positive*). The two ratings were combined to form an index of perceived in-group devaluation (Krippendorff's α = .90, 95% CI = [.86, .94]).

9.3.3. System justification

Participants completed a four-item abridged version of O'Brien et al.'s (2012) system justification measure used in Study 2: "This is an open and fair society where both BvB/BaE and other members of society can achieve higher status;" "BvB/BaE have difficulty achieving higher status" (reverse scored); "Advancement in this society is possible for both BvB/BaE and other members of society;" and "BvB/BaE are often unable to advance in this society" (reverse scored); This scale not only captures perceived system legitimacy and permeability (for a similar interpretation, see Eccleston, Kaiser, & Kraynak, 2010), but also assesses the protestant work ethic and resource equity ideologies that are central to SJT (Jost et al., 2003). Various permutations of this scale have been used both by the proponents of SJT (e.g. Kay & Jost, 2003; "Everyone has a fair shot at wealth and happiness") and independent researchers (e.g. O'Brien & Major, 2005: "Differences in status between groups in America are fair"). Consequently, we regarded this scale as being ideal for providing a valid, unbiased test of system justification. Participants responded using a six-point scale (1 = *strongly disagree*, 6 = *strongly agree*; Cronbach's α = .71, 95% CI = [.62, .78]).

9.3.4. Anger

We measured how angry participants felt towards the wider society at the moment they focused on their in-group's devaluation. The items in our four-item scale were: "I am annoyed with society right now;" "At this moment I feel angry with society;" "Right now I am irritated with this society;" and "I feel frustrated with this society right now." Participants responded using a six-point scale (1 = *completely disagree*, 6 = *completely agree*). All four items were combined to form an index of group-based anger (Cronbach's α = .93, 95% CI = [.91, .95]).

9.3.5. Social protest

We asked participants to imagine a scenario in which cuts to their BvB/BaE programme were endorsed by mainstream society. Specifically, they read that:

> Imagine that politicians have taken the view that money could be saved by cutting government funding for programmes like BvB/BaE. According to a recent poll conducted by the 'Frankfurter Sonntagszeitung' this is also supported by the majority of the German society. Now please imagine that a demonstration has been organized in the federal state of Hessen. BvBler/BaE people and further affected persons like you want to show society how they feel about funding cuts.

Following this cover story, participants rated the acceptability of 10 possible protest behaviours (1 = *totally unacceptable*, 6 = *completely acceptable*). These 10 items were adapted from Tausch et al. (2011) and have been used previously to tap normative forms of collective action (e.g. "signing a petition containing demands on politicians") and non-normative forms of collective action (e.g. "setting buildings on fire") (Owuamalam, Issmer, Zagefka, Klaßen, & Wegener, 2014). A confirmatory factor analysis revealed a two-factor solution corresponding to normative actions (four items; Cronbach's α = .89, 95% CI = [.85, .92]) and non-normative actions (six items; Cronbach's α = .91, 95% CI = [.89, .93]). This two-factor solution represented the data significantly better than a one-factor solution ($\Delta\chi^2(1) = 273.983$, $p < .001$).

10. Results and discussion

10.1. Manipulation check

Confirming the effectiveness of the group devaluation manipulation, an independent *t*-test on the index of perceived group devaluation indicated that participants in the salient group devaluation condition reported greater devaluation of their in-group ($M = -1.21$, SD = 1.30) compared to those in the non-salient group devaluation condition ($M = .88$, SD = 1.31), $t(130) = 9.21$, $p < .001$, Cohen's $d = 1.60$.

10.2. Main analysis

Table 1 presents zero-order correlations and descriptive statistics.

The hypotheses were tested using path analyses that used full information maximum likelihood estimation in Mplus 6 (Muthén & Muthén, 1998–2011). First, we compared specific nested models derived from the theoretical arguments outlined above and similar to the ones presented in Study 2. In a critical test model, we tested our key prediction that the mediational path from group devaluation, through system justification and anger, to social protest, would be moderated by in-group identification. In a strict SJT test model, we constrained the interaction terms involving in-group identification to have a negative coefficient (see Figure 3(a)) representing the negative values that these interaction terms would assume if SJT's prediction that low identifiers justify the system more is accurate.

Finally, in a liberal SJT model, we specified a model that was similar to the strict SJT model, except that interactions involving identification were not formally accessed as was the case in Jost et al. (2012). We also controlled for the effect of gender across all three models because: (a) SJT suggests that system justification would be stronger among women (disadvantaged group) compared to men (privileged group) and (b) holding gender constant allows us to be more confident that the predicted effects are attributable to group disadvantage based on educational affiliation. Group devaluation was effect coded (1 = salient group devaluation, −1 = non-salient group devaluation) and the moderators were centred around their means prior to analyses. Table 2 depicts the fit values for all three models.

The critical test model (see Figure 3(b)) fitted the data well according to all fit indicators: $\chi^2(4) = 1.881$, $p = .76$, CFI = 1.000, RMSEA = .000 and SRMR = .016. In particular, a contrast of the three models showed that both the strict and liberal SJT models fitted the data significantly less well than the critical test model (see Table 2). Again, the coefficients for the interactions involving identification were consistent with SIT's predictions, but contrary to those of SJT. Thus, we restricted our probe of specific indirect effects to the critical test model.

10.2.1. Palliation hypothesis

According to SJT, people who justify the system when confronted with group devaluation are less likely to experience negative emotions (e.g. anger), and this palliative effect should be stronger among low identifiers. Contrary to this prediction, the soothing effect of the system justification on anger was only significant for high identifiers, $B = -.12$, SE = .08, 95% CI = [−.332, −.009], and not for low identifiers, $B = .03$, SE = .06, 95% CI = [−.075, .156].

10.2.2. (De-)mobilization—normative and non-normative social protest

To test the different proposed pathways leading to both mobilization and demobilization effects, we bootstrapped the indirect effects of salient group devaluation on the normative and non-normative forms of social protest via system-justifying beliefs and anger. First, there was a *mobilizing* effect of salient group devaluation on both normative and non-normative social protest that was explained by anger for high identifiers (albeit marginal for non-normative social protest): salient group devaluation increased anger among high identifiers, which resulted in greater orientation towards normative and non-normative protest (see Table 3).

Contrary to SJT, there was no significant demobilization effect of system justification via anger among low identifiers (see anger column in Table 3).

Second, there was a *demobilizing* effect of salient group devaluation on non-normative social protest via system justification. Again, however, consistent with SIT, this effect was only significant for high identifiers (see Table 3, system-justifying beliefs column). Notably, the corresponding indirect effect on normative social protest was *positive* (see Table 3), suggesting that although system

Table 1. Zero-order correlations and descriptive statistics for variables included in Study 3

	1	2	3	4	5	6	7	*M*	SD
1. Group devaluation	–							–	–
2. Group identification	.34***	–						3.44	1.34
3. System-justifying beliefs	.17†	.24**	–					4.57	1.10
4. Anger	−.07	−.22**	−.31***	–				2.28	1.47
5. Normative social protest	.12	.00	.15†	.11	–			3.39	1.65
6. Non-normative social protest	−.03	−.15†	−.27**	.23**	.27**	–		1.49	0.96
7. Gender	−.09	−.11	.04	.06	.02	.27**	–	–	–

Notes: Coding for group devaluation (1 = salient, −1 = non-salient). Gender coding (1 = female, 2 = male).

†Level of significance at $p \leq .10$.

*Level of significance at $p < .05$.

**Level of significance at $p \leq .01$.

***Level of significance at $p < .001$.

justification prevented non-normative social protest, it encouraged more peaceful, normative protest—because this form of protest is not as likely to put the image of the in-group at risk (Shelton et al., 2006; see also Study 1). That is, a disruption to the social order is minimal (if at all present) when people convey their concerns via socially acceptable means. Consequently, it should not expose the in-group to external criticisms and negative reputation (Kaiser & Miller, 2001).

Third, we considered the conditional three-way mediation via system-justifying beliefs and anger (see Table 4). Contrary to SJT, the indirect effect of salient group devaluation on both normative and non-normative social protest was negative for *high identifiers* (see Table 4). Hence, among high identifiers, salient group devaluation increased system justification which in turn decreased anger, eventually resulting in less normative and non-normative action. Contrary to SJT, these indirect effects were non-significant for low identifiers (see Table 4).

10.3. How does our data compare to those reported by SJT scholars?

We find similar demobilization patterns to those typically reported by the proponents of SJT. Like Jost et al. (2012), when we examined the indirect effect of system justification on social protest via anger, we found that system justification "soothed" anger, and this correspondingly lowered an inclination towards normative social protest $B = -.09$, SE = .06, 95% CI = [−.253, −.010], and non-normative social protest (although marginally), $B = -.04$, SE = .04, 90% CI = [−.118, −.001]. But what initially looked like support for SJT became support in favour of SIT when the moderating role of identification was taken into account. Indeed, the soothing effect of system justification on normative protest via anger was *only* significant among high identifiers, $B = -.17$, SE = .09, 95% CI = [−.391, −.046], and not among low identifiers, $B = .01$, SE = .07, 95% CI = [−.163, .108]. A similar pattern emerged on the measure of non-normative social protest: the soothing effect was only significant for high identifiers, $B = -.05$, SE = .04, 95% CI = [−.180, −.004], but not for low identifiers, $B = -.03$, SE = .05, 95% CI = [−.145, .020].

In short, contrary to SJT, Study 3 found that high identifiers, rather than low identifiers, justified the devaluation of their in-group. This system justification had a "palliative effect," decreasing the extent to which high identifiers felt angry over the status quo. In turn, this decreased anger led to a decrease in high identifiers' orientation towards social protest. Independent of the palliative functions of this process, high identifiers were nonetheless more likely to engage in normative forms of social protest that posed little threat to how their group may be perceived by outsiders, and they rejected disruptive (image-tainting) non-normative approaches to communicating their discontent.

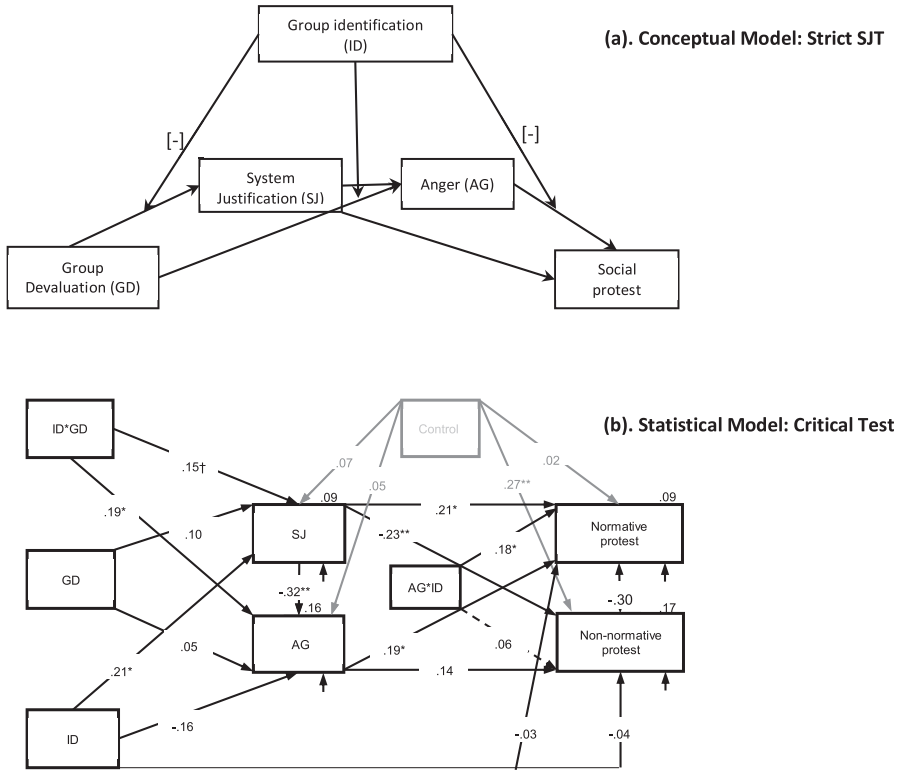

Figure 3. System justification-mediated effects group devaluation on social protest.

Notes: A conceptual (a) and statistical (b) model of system justification-mediated effects on social protest. Presented are standardized bootstrapped estimates (1,000 re-samples were used). R-squares are presented above outcome variables in the statistical model. Variables in grey were included as covariates in the model. Greyed paths in the conceptual model imply paths that were not estimated in the fully mediated model, and greyed paths relate to variables that were included as covariates in the model. Covariances between predictors are removed to reduce visual clutter. Codes: Group devaluation non-salient = -1; group devaluation salient = 1. Gender coding: women = 1, men = 2. †, * and ** $p < .10$, .5 and .01 respectively.Key: ID = identification; GD = group devaluation; ID*GD = identification*group devaluation; and AG*ID = anger*identification.

Key: ID = identification; GD = group devaluation; ID*GD = identification*group devaluation; AG*ID = anger*identification.

11. General discussion

We examined two novel social identity-based explanations of system justification, namely: group reputation management (Study 1) and hope for future in-group status (Study 2). Consistent with SIT, we found that these processes mainly operated when group interests were high rather than low, as represented by the presence of a salient out-group audience (Study 1) and high in-group identification and identity salience (Study 2). Study 3 extended our investigations by considering the impact of system justification on group-based anger and social protest. We found that group devaluation led to increased system justification, which generally predicted greater demobilization via anger (cf. Mähönen & Jasinskaja-Lahti, 2015). However, consistent with SIT and contrary to SJT, this mediation effect was restricted to high identifiers and did not occur for low identifiers.

11.1. Theoretical implications and directions for future studies

A key assumption of SJT is that system justification does not operate in the service of personal or group interests (Jost & Banaji, 1994, p. 10). Instead, people are assumed to defend social systems in

Table 2. Fit indices of the three theoretically relevant models in Study 3

	χ^2 (*df*)	CFI	SRMR	RMSEA	$\Delta\chi^2$ (*df*)
Critical test model	1.607 (4)	1.000	.015	.000	–
Strict SJT model	14.043 (6)	.869	.042	.101	12.436 (2)**
Liberal SJT model	13.869 (9)	.934	.042	.064	11.262 (5)*

Notes: df = degrees of freedom. $\Delta\chi^2$ = chi-square difference.

*Level of significance at $p < .05$.

**Level of significance at $p \leq .01$.

Table 3. Conditional indirect effects of group devaluation (GD) on normative and non-normative social protest at ± 1 SD of mean identification (Study 3: "Simple mediations")

	... via anger						... via system justification beliefs					
	Boot B	***Boot SE***	***CI***				***Boot B***	***Boot SE***	***CI***			
			$LL_{95\%}$	$LL_{90\%}$	$UL_{90\%}$	$UL_{95\%}$			$LL_{95\%}$	$LL_{90\%}$	$UL_{90\%}$	$UL_{95\%}$
Indirect effects of GD on normative social protest												
High identifiers [*M*+1SD]	.15	.08	.024	.040	.290	.322	.09	.07	.002	.012	.248	.308
Low identifiers [*M*−1SD]	−.01	.04	−.125	−.100	.038	.053	−.02	.05	−.137	−.116	.037	.053
Indirect effects of GD on non-normative social protest												
High identifiers [*M*+1SD]	.05	.03	.001	.007	.128	.137	−.06	.04	−.158	−.139	−.011	−.004
Low identifiers [*M*−1SD]	−.01	.03	−.139	−.106	.009	.018	.01	.03	−.036	−.025	.063	.075

Notes: *Boot B* = bootstrapped indirect effect estimate; *Boot SE* = bootstrapped standard error for the indirect effect estimate. Number of bootstrap re-samples = 1,000. Bias-corrected 90% as well as 95% CIs are reported, which are consistent with conventional $p < .10$ and $p < .05$ significance levels. Note that none of the effects for low identifiers was significant at $p < .10$.

Table 4. Conditional serial indirect effects of group devaluation (GD) on normative and non-normative social protest at ± 1 SD of mean identification (Study 3: "Serial 3-way-mediation")

	... via system justification beliefs and anger					
	Boot B	***Boot SE***	***CI***			
			$LL_{95\%}$	$LL_{90\%}$	$UL_{90\%}$	$UL_{95\%}$
Indirect effects of GD on normative social protest						
High identifiers [*M* + 1SD]	−.05	.04	−.164	−.156	−.011	−.006
Low identifiers [*M* − 1SD]	.00	.01	−.013	−.008	.023	.028
Indirect effects of GD on non-normative social protest						
High identifiers [*M* + 1SD]	−.02	.02	−.077	−.068	−.002	−.001
Low identifiers [*M* − 1SD]	.00	.01	−.003	−.002	.027	.033

Notes: Boot B = bootstrapped indirect effect estimate; Boot SE = bootstrapped standard error for the indirect effect estimate. Number of bootstrap re-samples = 1,000. Bias-corrected 90% as well as 95% CIs are reported, which are similar to the conventional $p < .10$ and $p < .05$ significance levels. Again, none of the effects for low identifiers was significant at $p < .10$.

the service of a system justification motive. However, the theory has struggled to find clear, non-reductionist reasons for this motive. Proposed antecedents have included meritocratic ideology, stress prevention, coping, the need for structure and closure, openness to experience and mortality salience (Jost & Hunyady, 2002). However, these antecedents are all rooted in the individual rather than the system and, consequently, they reduce the system justification motive to a personal, individual-level motive. If "endorsing system-justifying ideologies serves to *make people feel better*" (Jost & Hunyady, 2002, p. 145, our emphasis), then it is best characterized as an individual-level motive rather than anything else. Consistent with this view, recent SJT research has considered relatively personal motives for system justification, including the need for self-esteem (McCoy et al., 2013) or need to protect one's self-image (Wiederkehr et al., 2015).

The present research complements this revisionist individual-level explanation of system justification, by considering an alternative, group-based explanation of system justification. Specifically, we assumed that the need for a positive social identity motivates system justification, especially when group status relations are perceived to be legitimate. Three studies provided support for this explanation.

Notably, Study 2's finding that system justification occurs more readily within an unstable status structure seems at odds with established views that high identifiers tend to resist inequality under unstable hierarchical systems (e.g. see Nadler & Halabi, 2006). However, the current findings are not necessarily incompatible with SIT's propositions when a distinction between short-term and long-term status system stability is taken into account. Hence, in the unstable condition of Study 2, the status system is actually stable in the short term, but unstable in the long term, which is why the hope for future in-group status strategy is stronger in that condition.

11.2. Limitations

McCoy et al. (2013) has noted that "not all legitimizing ideologies yield the same consequences for the self-esteem of members of low status groups" (p. 308). Similarly, we reasoned that not all forms of system justification may be beneficial to social identity, and we acknowledge that our SIT-derived predictions may not be equally apparent for every single operationalization of system justification. In the present research, we conceptualized system justification in terms of status permeability (Studies 1–3), fairness (Studies 1–3), support for social class and legitimation of economic disparities (Studies 1–3) and a composite scale comprising several different operationalizations of system justification (Study 2). Using these diverse operationalizations, we found evidence to support our proposal that system justification is more likely to be adopted in the service of group interests. We also found evidence for our position when we used the more stringent status-specific measure of system justification advocated by neo-system justification scholars (Sengupta et al., 2014). However, it is important for future research to investigate whether our findings apply equally well to other forms of system justification, including endorsements of status-sustaining stereotypes (e.g. poor but happy), and uniformly across cultures (cf. Kelemen, Szabó, Mészáros, László, & Forgas, 2014).

We further acknowledge that it would have been ideal to have used a richer measure of system justification than the two-item operationalization of this construct in Study 1. However, our approach was guided by the special relations between the Malays and Chinese Malaysians as outlined in the preamble to Study 1. Although there is a standard multiple item scale of economic system justification, we are not aware of a similar multiple item scale for political system justification. Hence, for the sake of numeric equivalency, we used one item each from these two operationalizations of system justification that unambiguously tapped the relevant constructs. Note, however, that group status had the opposite effect to the one predicted by SJT on the eight-item social dominance measure included in Study 1 (a construct that SJT scholars have identified to be a further operationalization of system justification—see Jost & Hunyady, 2005). Nonetheless, future studies could aim to develop a measure of political system justification that could be suited for intergroup contexts such as the one we used in Study 1.

11.3. Conclusion

To summarize, in the three studies presented in this paper, we found no support for SJT beyond the predictions that it shares in common with SIT. Following Brandt (2013), it is possible to draw two conclusions from this null evidence. The obvious one based on the current findings is that SJT's predictions regarding the motives for system justification are inherently deficient. Second, the predicted effects for low identifiers manifest in forms other than support for the system. We consider each of these two possibilities in turn.

First, in relation to the theoretical basis of SJT, we call for a more integrated perspective in which social identity motives may, at times, underlie system justification. Contrary to recent research that discounts system justification (Brandt, 2013), our approach reinterprets system justification as a social identity management strategy that operates in the service of group-based motives and that, consequently, is more likely to manifest among high identifiers rather than low identifiers.

Finally, we accept that it might be fruitful not to limit SJT's predictions regarding low identifiers to apathy towards the status quo. Indeed, the motivation to leave the system the way it is might mean that system-sustaining strategies employed by low identifiers become evident, not in relation to

disinclination towards protest, but rather antagonism towards those who try to change it (including members of one's own group). We are not aware of any SJT research on this topic, and this could be incorporated in future revisions of the theory. In this sense, we acknowledge Kay and Jost's (2014, p. 146) advice that "competition among 'rival' theories tends to be illusory, and such debates are rarely, if ever, resolved," and have aimed at unification in this research programme by *clarifying* a crucial point which sets system justification and social identity theories apart.

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Notes
i. Aspects of this paper were presented at the EASP/SPSSI small group meeting on "The Great Recession and Social Class Divides" that was held at Princeton University (4th September, 2014).
1. β, *b* and *B* = non-bootstrapped standardized coefficients, non-bootstrapped unstandardized coefficients and bootstrapped regression estimates, respectively.

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Appendix A

Survey Questions
Measures in Study 1.

The manipulation of status primes presented via Psychopy on a different computer next to the one that contained the qualtrics survey questions that followed.

(1) *Group status manipulation check*. Racial groups in society occupy different social status positions. Below are two racial groups that exist in Malaysian society. Using the scale next to each group, please indicate your beliefs about the relative status of each of the two social groups.

(a) Chinese (1 = Low status, 7 = High status).

(b) Malays (1 = Low status, 7 = High status).

(2) *In-group identification* (1 = Strongly disagree, 7 = strongly agree).

(a) I value being a Chinese.

(b) Being a Chinese is important to my sense of who I am.

(c) I am proud to be part of Chinese.

(d) Being part of Chinese is a positive experience.

(e) It is important to me to be a Chinese.

(f) I am pleased to be a Chinese.

(3) *Social dominance orientation* (1 = Strongly disagree, 7 = strongly agree).

(a) It is probably a good thing that certain groups are at the top and other groups are at the bottom.

(b) Inferior groups should stay in their place.

(c) Superior groups should dominate inferior groups.

(d) Sometimes, other groups must be kept in their place.

(e) To get ahead in life, it is sometimes necessary to step on other groups.

(f) If certain groups of people stayed in their place, we would have fewer problems.

(g) Some groups of people are just more worthy than others.

(h) In getting what your group wants, it is sometimes necessary to use force against other groups.

(4) *Group devaluation manipulation check.*

(a) The impressions that Malays hold about Chinese are generally.

(i) 1 = Very negative, 7 = Very positive.

(ii) 1 = Extremely unfavourable, 7 = Extremely favourable.

(5) *Group reputation concern* (1 = Strongly disagree, 7 = strongly agree).

(a) I care about how others perceive Chinese.

(b) It is important for me that others have a positive view of Chinese.

(c) When I feel that someone has a negative view of Chinese, I can get quite upset.

(6) *System justification scale* (1 = Strongly disagree, 7 = strongly agree).

(a) Overall, economic positions are legitimate reflections of people's achievements (Kay & Jost, 2003).

(b) Generally, social class differences reflect differences in the natural order of things (Jost & Hunyady, 2005).

Measures in Study 2.

(1) *In-group identification* (1 = strongly disagree, 7 = strongly agree).

(a) Being a Newcastle University student is an important part of my self-image.

(b) The University of Newcastle has very little to do with how I feel about myself (R).

(c) Being a Newcastle University student is unimportant to my sense of what kind of a person I am (R).

(d) I do not consider the University of Newcastle to be an important part of my self-definition (R).

(e) The University of Newcastle represents a significant aspect of my identity.

(f) Being a Newcastle University student Newcastle is a defining feature of me.

(2) *Identity salience* (1 = strongly disagree, 7 = strongly agree).

(a) At the moment, I am quite conscious of being a Newcastle University student.

(b) At the moment, my identity as a Newcastle University student is very clear to me.

(c) I don't really see myself as a Newcastle University student (R).

(d) As I've been completing this survey, the fact that I am a Newcastle University student has rarely entered my mind (R).

(e) Right now, I am not very conscious of the fact that I am a Newcastle University student (R).

(f) At the moment, I'm very aware that I am a Newcastle University student.

(3) *Group status manipulation check* (1 = strongly disagree, 7 = strongly agree).

(a) The University of Newcastle has a better status than the [out-group university].

(b) The [out-group university] is more prestigious than the University of Newcastle (R).

(c) A degree from the [out-group university] tends to be worth more than a degree from the University of Newcastle (R).

(d) It is widely accepted that [out-group university] is a better university than the University of Newcastle (R).

(e) Employers tend to prefer graduates from the University of Newcastle compared to graduates from the [out-group university].

(f) Overall, graduates from the [out-group university] are more successful in life than graduates from the University of Newcastle.

(g) Graduates from the [out-group university] have a better chance of getting a high-paying job than graduates from the University of Newcastle (R).

(h) The University of Newcastle has a much better reputation than the [out-group university].

(4) *Long-term status stability manipulation check* (1 = strongly disagree, 7 = strongly agree).

(a) Different universities do not change their rankings much from year to year (R).

(b) I think that there is a lot of variability in the rankings of Australian universities.

(c) It is quite likely that a university can be ranked above another university one year but below it the following year.

(d) The Australian University Rankings system is quite reliable, and ranking positions don't change much from one year to the next (R).

(5) *Hope for future in-group advancement* (1 = strongly disagree, 7 = strongly agree).

(a) In the future, it is likely that the University will have roughly the same status as it does now (R).

(b) I have a feeling that the University's academic reputation will stay more or less the same over time (R).

(c) By the time I'm looking for a job, the University may be better ranked among Australian universities.

(d) I doubt that the University's reputation is going to get any better than it is now (R).

(e) The University is likely to have a better reputation with employers in the future.

(f) A degree from the University will probably be worth more in the future than it is now.

(g) The University's status will be roughly the same in five years as it is now (R).

(h) I think that the University is on an upward trajectory in terms of the quality of the graduates that it produces.

(i) I am confident that the University prestige will improve substantially in the future.

(j) It is likely that the University will stay in the same overall ranking position for the foreseeable future (R).

(6) *Rubin et al.'s (2014) System Legitimacy scale*. Please indicate the extent to which you agree or disagree that the following terms apply to the Australian University Rankings system (1 = strongly disagree, 7 = strongly agree).

(a) Discrimination (R).

(b) Differential treatment (R).

(c) Prejudice (R).

(d) Rational.

(e) Justified.

(f) Sensible.

(g) Legitimate.

(h) Unfair (R).

(7) *O'Brien et al.'s (2012) System Justification Beliefs scale* (1 = strongly disagree, 7 = strongly agree).

(a) I feel that universities earn the reputation they get.

(b) I feel that employers treat universities with the respect that they deserve.

(c) Differences in status between Australia's universities are fair.

(d) Individual universities are often unable to advance in status and prestige (R).

(e) I feel that different universities get what they are entitled to have.

(f) Differences in status between Australian universities are the result of injustice (R).

(g) I feel that different universities get what they deserve.

(h) Australia is an open society where all universities can achieve higher status.

(i) Universities that don't get ahead should not blame the system; they really only have themselves to blame.

(8) *Kay and Jost's (2003) System Justification scale* (1 = strongly disagree, 7 = strongly agree).

(a) In general, the Australian University Rankings system is fair.

(b) In general, the Australian University Rankings system operates as it should.

(c) The Australian University Rankings system needs to be radically restructured (R).

(d) The Australian University Rankings system is the best possible system.

(e) The Australian University Rankings system serves the greater good.

(f) The Australian University Rankings system is set up so that universities usually get the ranking that they deserve.

(9) *Lucas et al.'s (2011) Belief in a Just World measure* (1 = strongly disagree, 7 = strongly agree).

(a) I feel that universities generally earn the rewards and punishments that they get in this world.

(b) Universities usually receive the outcomes that they deserve.

(c) Universities generally deserve the things that they are accorded.

(d) I feel that universities usually receive the outcomes that they are due.

(10) *Rubin et al.'s (2010) PARH scale* (1 = strongly disagree, 7 = strongly agree).

(a) I knew what the researchers were investigating in this research.

(b) I wasn't sure what the researchers were trying to demonstrate in this research.

(c) I was unclear about exactly what the researchers were aiming to prove in this research.

(d) I had a good idea about what the hypotheses were in this research.

Measures in Study 3.

Back-translation from German to English was done by the third author who is a native German speaker and a fluent English speaker.

(1) *In-group identification* (1 = completely disagree, 6 = completely agree).

(a) I value being a BvBler.

(b) I am proud to belong to the group of BvBler.

(c) I like being a BvBler.

(d) I believe that being a BvBler is a positive experience.

(2) *Group devaluation manipulation check.*

(a) The impressions that Malays hold about Chinese are generally.

(i) −2 = Very negative, 2 = Very positive.

(ii) −2 = Extremely unfavourable, 2 = Extremely favourable.

(3) *Shortened version of O'Brien et al. (2012) system justification scale* (1 = completely disagree, 6 = completely agree).

(a) This is an open and fair society where both BvB/BaE and other members of society can achieve higher status.
(b) BvB/BaE have difficulty achieving higher status (R).
(c) Advancement in this society is possible for both BvB/BaE and other members of society.
(d) BvB/BaE are often unable to advance in this society (R).

(4) *State anger* (1 = completely disagree, 6 = completely agree).

(a) I am annoyed with society right now.
(b) At this moment, I feel angry with society.
(c) Right now, I am irritated with this society.
(d) I feel frustrated with this society right now.

(5) *Tausch et al.'s (2011) social protest scale* (1 = completely disagree, 6 = completely agree).

(a) Normative items.
(i) Taking part in demonstrations.
(ii) Participating in information sessions.
(iii) Writing flyers and creating banners.
(iv) Signing a complaint containing demands on politics.
(b) Non-normative items.
(i) Attacking the police.
(ii) Throwing paint bombs on public buildings (e.g. town hall).
(iii) Setting fire on buildings.
(iv) Blocking streets.
(v) Blocking public buildings (e.g. town hall).
(vi) Throwing stones or bottles.