Cultural Group Norms for Harmony Explain the Puzzling Negative Association between Objective Status and System Justification in Asia

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Abstract

Why do poorer and less-educated Asians trust their institutions of governance more than richer and well-educated people, despite their disadvantaged position within society? System justification theory (SJT) assumes that this trust is driven by a system-level motivation that operates independently from social identity needs. In two nationally representative surveys spanning 27 cumulative years (N_{total} = 221,297), we compared SJT's explanation with a newer social identity model of system attitudes (SIMSA): that system justification amongst disadvantaged Asians is driven by a group norm for harmony, especially amongst those strongly invested in their national ingroup. Results supported SIMSA more than SJT. Specifically, a strong sense of national pride/loyalty boosted trust in systems of governance amongst poorer and less-educated Asians, both when societal norms for harmony (Study 1), and personal endorsement of this norm (Study 2) were strong. Hence, social identity needs help to explain stronger system-justification amongst objectively disadvantaged Asians.

Keywords: system justification, SIMSA, Asia, disadvantaged groups.

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History abounds with examples of group interests being powerful motives for human behavior. In recent years, for instance, the people of Hong Kong took to the streets to protest against legislative reforms that they believed threatened a "one-state, two-systems" arrangement that guaranteed certain freedoms for themselves and their region (Cheng & Grundy, 2019). However, despite the fact that group motives pervade social and political transactions, people do not always disapprove of the social systems that clearly undercut (some of) their group interests. For example, studies have shown that Indians from lower caste groups oppose inter-caste dating/marriages that would help to dilute the caste system in their favor, and they even sometimes support discrimination against lower castes, when group interests should motivate the opposite course of action (Cotterill et al., 2014; cf. Jogdand et al., 2016). Why do these *system justifying* behaviors occur, and are there cultural group norms that help to explain them? Here, we compare two prominent explanations for the puzzling system-justifying attitudes of disadvantaged people in Asia and, for the first time, consider a previously overlooked cultural group norm that may play an important role – the harmony creed.

System Justification Theory

According to system justification theory (SJT; Jost & Banaji, 1994), the puzzling rationalization of disadvantageous systems occurs because people possess an autonomous system-level motive that prompts them to defend their social arrangements, by viewing them as just, fair and legitimate, even if doing so goes against their personal/group interests (see also Proudfoot & Kay, 2014, p.175). Protesting against the system—a form of confrontation—could be costly (e.g., in terms of social isolation, Kaiser & Miller, 2001) and, the uncertainties that

sometimes come with it could also undermine people's control over relevant life outcomes. Hence, based on SJT, it may be prudent for people from disadvantaged groups (especially those who are least invested in their social identities) to acquiesce to and/or actively support the status quo rather than to constantly agitate over social and political realities that are, in many cases, especially for the disadvantaged, inescapable and stable (Kay & Friesen, 2011; Laurin et al., 2011, 2013).

Interestingly, most of the evidence for SJT's explanation comes from individualistic Western nations, where a strong orientation towards individual motives could have weakened the influence of group justification motives (Jost et al. 2003; for a review, see Jost, 2019). However, there is also evidence of system justification amongst the disadvantaged occurring in collectivistic cultures (e.g., Li et al., 2020), where strong group motives should counteract the influence of the system motive for this demographic (see Jost et al., 2004). That the system justification phenomenon occurs across these cultural contexts, some might argue, reinforces support for SJT's prediction that disadvantaged groups can (and do) support societal arrangements even when doing so is incompatible with their collective interests (for exceptions, see Kelemen et al., 2014; Szabó & Lönnqvist, 2021).

SJT's cognitive dissonance explanation. The "strong," dissonance-based explanation of system justification assumes that members of disadvantaged groups show system justification in order to reduce the cognitive dissonance that they experience when confronted with cognitions rooted in two conflicting motives: (a) their group's low status and (b) their apparent acquiescence to (or support for) a system that causes their group's low status (Jost et al., 2003, p. 16). According to this dissonance-based explanation, members of disadvantaged groups should show greater system justification than members of advantaged groups, because "those who suffer the

most also have the most to explain, justify, and rationalize" when it comes to systems that disfavor them (Jost et al., 2003, p. 16): It is for this reason that we anticipated that a glaring or *objective disadvantage* that is easily verified and quantified (e.g., income or education levels) may be crucial to claims of suffering and a subsequent need to rationalize it, relative to a subjective experience of disadvantage (e.g., based on stereotypes) that may be harder to prove (Jost, 2019, p. 279; see also Jost, 2017, p. 74). Proponents of SJT ostensibly recognized that system-justifying attitudes amongst the disadvantaged could result from other personal/group-interested reasons: such as fear of repressive regimes (Miller et al., 2009), cost-benefit calculations suggesting that rebellion could be futile (Hornsey et al., 2006), or simply due to the personal well-being benefits of socially creative interpretations of the realities that confront them (Owuamalam et al., 2017a; see also Bezouw et al., 2020). Hence, to distinguish the new system motive explanation from its older siblings (i.e., the foregoing self/group motives), SJT proponents clarified that "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 et al., 2003, p. 17) or "strength" (Jost et al., 2004, p. 909). It is only under such circumstances that the normally powerful personal and/or group motives should recede and consequently allow the system motive to prevail.

Some studies have found supportive evidence for this dissonance-based explanation for system justification vis-à-vis a *negative* association between group status and system-justifying attitudes not only at the explicit level (e.g., Henry & Saul, 2006; Jost et al., 2003) but also at the implicit level of consciousness (Essien et al., 2020; Hoffarth & Jost, 2017). However, other studies have found no supportive evidence (Brandt, 2013), and some studies have shown that a dissonance-induced system justification is more likely amongst group members who *strongly*

(rather than *weakly*) identify with their group (Owuamalam & Spears, 2020). Also, recent theoretical work has highlighted theoretical inconsistencies between cognitive dissonance theory and system justification theory's dissonance-based explanation, pointing out that the experience of cognitive dissonance ought to be strong when the competing realities needing sense-making are sufficiently salient (i.e., when the conflicting group and system needs are strongly salient in the minds of the disadvantaged, Owuamalam et al. 2016).

System justification in Asia. It is important to note that there is a paucity of research on the system justification phenomenon in Asia (for a review, see Yang et al., 2019) and an almost nonexistent exploration of system-justifying attitudes in Southeast Asia (cf. Owuamalam et al., 2016). The few studies of system justification in Asia tend to report evidence in the opposite direction to the strong dissonance-inspired system motive explanation: Here, disadvantaged groups sometimes support their societal systems *less* than their advantaged counterparts under conditions that should enable (not disable) the system-motive (Owuamalam et al., 2017b; see also Brandt, 2013; Brandt et al., 2020). One argument concerning the accumulating evidence against SJT's strong dissonance-based prediction in Asia refers to the emphasis that has been placed on the type of status indicator that researchers have used in their investigation (e.g., the excessive focus on subjective status, Yang et al., 2016). The point here is that when the attention on social status shifts from *subjective* to *objective* measures—which was the focus of the original test of the dissonance-inspired prediction (Jost et al., 2003)—then SJT's strong dissonance-based prediction of a negative relation between group status and system justification tends to find support in Asia (e.g., Li et al., 2020).

But the foregoing argument discounts a recent revision in which proponents of SJT argued that it is in fact subjective (not *objective*) status that should engender the dissonance

processes needed for the system motive to bolster system justification amongst the disadvantaged (van der Toorn, Feinberg, Jost, Kay, Tyler, Willer & Wilmuth, 2015). Nonetheless, Brandt et al. (2020) took this latter revision to task and found little or no evidence for it across the 66 participating labs in 30 nations spread across the globe. But there is one more reason to question SJT's *status-type caveat*: It suggests that different operationalizations of a construct (here social status) invoke different motivations that yield contradictory pattern of results. Some might argue (e.g., Jost et al., 2012, p. 200) that theoretically similar constructs should engender similar motives with respect to the associated outcomes (or more generally, tests of a hypothesis should ideally not depend on the specifics of operationalization but be robust to variation in this regard).

We revisit the foregoing issue in our supplementary document (SM1), but here, we consider a simpler explanation for the equivocal evidence for system-justifying attitudes amongst the disadvantaged that (a) consistently explains system justification amongst the disadvantaged even when objective status is the focus and (b) does not invoke the theoretically and empirically problematic dissonance-induced system-motive account for greater system justification amongst the disadvantaged (Owuamalam et al. 2016; Owuamalam & Spears, 2020). Of course, some recent accounts of SJT have distanced from this dissonance explanation somewhat, suggesting that it is not the "engine" of the theory (Jost, 2019, p.282) or that it ought to be differentiated from the broader theory when undertaking its test (Jost, 2017, p.74). However, such distancing does not invalidate a test of SJT's dissonance explanation because, (1) it provides the clearest distinction between SJT and competing propositions, and (2) it continues to be highly contested not only within social psychology (Brandt et al., 2020), but also further afield in the wider social/political science circles (Trump & White, 2018). In short, SJT's dissonance-based account remains a legitimate thesis in its own right (see Appendix A for further discussions).

An Alternative Explanation Rooted in the Social Identity Tradition

The social identity model of system attitudes (SIMSA; Owuamalam et al., 2018, 2019a-b) proposes that members of low status groups (e.g., low-income earners) may place more trust in disadvantageous realities (e.g., systems of governance that arguably rig the economy in favor of the top 1%) than members of high-status groups (e.g., the well-paid and wealthy, top 1%) when they identify with, or take pride in, a superordinate (e.g., national) ingroup that embodies these societal groups (see also Vargas-Salfate et al., 2020). In this case, the search for a positive social identity could cause the disadvantaged to compensate for the loss of esteem arising from their poorer station in life by, for example, affirming the virtue of the societal institutions that are part-and-parcel of their superordinate (national) identity (i.e., "basking in reflected common glory" or the ingroup bias explanation; Owuamalam et al., 2018; 2019a-b). According to this explanation, the relatively low social self-esteem that the disadvantaged experienced with regards to their low status provides a relatively strong motivation for them to justify their superordinate ingroup and its systems, especially when they identify strongly with it.

Preliminary evidence that strong emotional investment in one's national identity helps to explain system justification comes from Vargas-Salfate and Ayala (2020). Specifically, these researchers found a positive association between nationalism (but not patriotism) and system justification amongst subjectively disadvantaged Peruvians. Due to their emphasis on subjective status, however, it remains unclear to what extent these Peruvian results can be generalized to Asia, considering the divergent associations often reported between subjective and objective status indicators in relation to system justification in Asia (e.g., Li et al., 2020). More importantly, SIMSA's superordinate ingroup explanation has recently been challenged on the grounds that it says little or nothing about the *specific contents* of the superordinate group

identity (e.g., one's nation) that should cause system justification to increase amongst the disadvantaged. According to Jost et al. (2019, p. 384), for example, the "theoretical hand-waving about 'superordinate group identification' brings us no closer to answering these important questions about the specific contents of ideologies and identities" that may underlie system-justifying attitudes of the disadvantaged. In the present study, we sought to address this issue by considering one specific norm in Asian national ingroups – the harmony norm.

The Asian Harmony Norm

The harmony norm is deeply rooted in Asian cultures (see Li et al.'s, 2020, p. 1047, discussion about the Confucian norm). In the Confucian tradition, for example, the Mandarin word 和 "he" (or harmony) represents an important cultural code denoting the "orderly combination of different elements" (Yao et al. 2000) that dates back to the Shang Dynasty between the 11th and16th BCE (Li, 2006). Specifically, and as Li (2006, p. 600) explained, under this doctrine, one:

> should avoid doing extreme things that create or perpetuate [one's] enemy, and even when you engage in fighting with your enemy, you should try to turn conflict into harmony. In other words, *one should maintain a harmony mentality* rather than the combatant mentality. (our emphasis)

This "harmony mentality" is so central to the Asian (moral) norms that when Duke Jing—of the state of Qi in ancient China—asked Confucius what makes for good governance, Confucius suggested that making peace with one's station in life is key, maintaining that citizens ought to: "let the ruler be a ruler, minister be a minister, father be a father, son be a son" (Eno, 2015).

Overview of the Generic Hypotheses

SIMSA's predictions for the disadvantaged: Given the prominence of the harmony norm in Asia, we expect Asians who identify strongly with their national ingroup to be more likely to conform to this norm because adhering to group norms is a behavior more often seen amongst strong group identifiers (Chao et al., 2010; Rubin et al., 2022; Terry & Hogg, 1996; Turner, 1982; 1990; see also Spears, 2021 for a recent review). Following SIMSA, therefore, we predicted that system justification would be most likely to occur amongst objectively disadvantaged people in Asia when they (a) have strong national pride and are loyal to their nation and (b) show a strong endorsement of the superordinate group norm of harmony.

SJT's predictions for the disadvantaged: Although SJT does not make an explicit provision for group norms in its dissonance-based explanation, it is possible to derive from it a different set of predictions to the one offered by SIMSA. This is because, SJT allows for the resolution of uncertainty via the use of system-justifying social norms (e.g., the harmony creed). As Jost et al. (2015, pg. 1289-1290) explain:

> The notion that norm compliance and internalization may be linked to system justification and its underlying motivational substrates also comports well with Gelfand and Harrington's (2015) observation that *people are especially likely to rely on social norms when they are motivated to manage uncertainty and threat* […]. From our perspective, the fact that many (if not most) social norms are familiar, customary, traditional, and legitimizing of the status quo may help to explain why people rely so heavily on them when they feel uncertain, threatened, or socially excluded.

So, although a dissonance-induced system justification amongst the disadvantaged should manifest when their social identification *at any level* is low (i.e., at the level of their disadvantaged subgroup or their superordinate national ingroup – see Kay et al., 2009, p.428),

we deduced from SJT that such an association should be most visible when the endorsement of a social norm that specifically prescribes the *avoidance of conflict and uncertainty* (i.e., the harmony norm) is also strong.

Exploratory predictions for the advantaged: In contrast to the disadvantaged, Asians who are privileged by existing societal arrangements might be pulled in two different directions when it comes to adhering to the harmony creed. On the one hand, a strong endorsement of societal harmony is arguably most beneficial to the advantaged because the certainty and stability that it offers helps to preserve their group's privileged position within the existing societal arrangements. On the other hand, *flaunting* one's support for a "convenient" social arrangement (i.e., a system that confers benefit to oneself/ingroup) could also seem provocative to those whose outcomes are poorer within the prevailing system, which is why a commitment to the harmony norm could cause the advantaged to downplay their support for systems that they clearly benefit from, to avoid this potential conflict. In the Asian context where the emphasis is on maintaining strong social ties (i.e., collectivism; Hofstede, 1983; Markus & Kitayama, 1991), the avoidance of conflict between people—as prescribed by the harmony norm—might take a front seat, making it more likely that the advantaged may choose to downplay (rather than to flaunt) the endorsement of realities that work for them. It is important to note, however, that as plausible as the proposition for the advantaged might be, neither SIMSA nor SJT is clear about advantaged group members' system-supporting attitudes/behaviors when there are competing interests, except that group-interested attitudes would emerge amongst those who are strongly invested in a social identity that confers privilege to them (Jost, 2020; see also Kray et al., 2017). Hence, in the two nationally representative studies reported here, we explored the system-supporting responses of the advantaged with theory development in mind.

We focused on nationally representative data in the current investigation because the evidence *against* the strong dissonance inspired SJT usually relied on small samples studies (e.g., Owuamalam et al., 2016), that are conducted in laboratory settings (e.g., Owuamalam & Spears, 2020), with mainly undergraduate students that may not represent other real-world demographics undergoing chronic disadvantage (Owuamalam et al., 2017, see also Brandt et al., 2020), whereas *supportive* evidence for SJT's dissonance-inspired proposition is based almost entirely on nationally representative samples (e.g., Henry & Saul; 2006; Jost et al., 2003; Li et al. 2020; Sengupta et al., 2015). Hence, the argument might be that evidence for SJT's strong dissonance-inspired hypothesis is visible in nationally representative surveys, but absent in non-representative laboratory samples (e.g., Owuamalam et al., 2016, 2017; Brandt et al., 2020; Trump & White, 2018) because the latter category of non-representative studies omitted people from the wider society who may be experiencing the level of objective (or chronic) disadvantaged needed for the negative association between objective status and system justification to manifest.

Study 1

There is growing consensus amongst researchers that subjective status and system justification are mostly positively correlated (Brandt, 2013; Brandt et al., 2020; Caricati, 2017; Owuamalam et al., 2016, 2017b; Li et al., 2020; Vargas-Salfate et al., 2018; Yang et al., 2016; but see van der Toorn et al., 2015). At issue, however, is the negative association often seen between objective status and system justification (e.g., Kim et al., 2021; Li et al., 2020), when a positive association is reported elsewhere in the literature for the same constructs (e.g., Brandt, 2013).

Interestingly, the negative association between objective status and system justification tends to be found in collectivist societies where the need for social harmony is strong, and where

there is a strong incentive against dissent (i.e., in less free regions of the world, e.g., Asia, see Li et al., 2020). However, a positive association between these two constructs tends to be found in individualist (Western) societies where *dissent* is culturally and politically more accepted (e.g., in freer societies, see e.g., Caricati, 2017), or when responses across these societies are aggregated, with larger representation of Western (than of Asian) regions in the relevant surveys likely swaying the pattern of results in favor of the former (see Brandt, 2013). No other study has systematically examined these possibilities, and our initial study closes this important gap by first *exploring* whether societal freedoms help to explain the divergent associations between objective status and system justification globally. We focused on objective status because it (a) provided the basis for the seminal test of SJT's dissonance-based system motive explanation, (b) tends to yield contradictory evidence (Brandt, 2013 vs. Li et al., 2020) and (c) mostly has negative associations with system justification in Asia. These considerations (especially a & c) favor a fair test of SJT, and failure to find support for its predictions should be instructive.

A further aim concerned the potential moderating role of two proxies of the harmony norm (the focal variable in this investigation): collectivism and uncertainty avoidance. We reasoned that the negative relation between objective status and system justification ought to be found in nations where the emphasis on *community* and societal harmony is strong (i.e., when societal collectivism and uncertainty avoidance are high). In such situations, complaints over one's poorer station in life ought to be thwarted and/or subdued to avoid "rocking the boat." Meanwhile, for the advantaged, a sense that "we are in this together" (i.e., community) ought to discourage the flaunting of support for convenient societal realities, that could provoke envy and resentment amongst the disadvantaged, and potentially threaten social cohesion. Wu et al. (2018, p.1) described the dangers that rich Asians who flaunt their privilege might face in Figure 1.

> On April 11, 2012, Ming Qiu and Ying Wu, two Chinese graduate students, were shot to death when sitting in their BMW […]. In Weibo, the Chinese equivalent of Twitter, many ordinary web surfers quickly latched onto one detail of the news coverage—the victims' luxury car—and opined that the two students were *showing off their wealth*. Many of the comments about this news were hateful. For instance, one comment said, "They are either second generations of the wealthy or the politicians. They deserve to die," which received 3,150 upvotes. (our emphasis).

Figure 1. Extract from Wu et al. (2018, p.1). Source: *Journal of Cross-Cultural Psychology*

If the advantaged downplay their support for convenient realities to maintain order, and the disadvantaged are motivated by the same harmony norm to embrace their societal systems, one might expect a negative relation between objective status and system justification in societies that are high in the harmony proxies of collectivism (as per SIMSA) and uncertainty avoidance (as per SJT). We attribute the harmony proxy of collectivism to SIMSA because this construct ties the need for harmony to social identity motives. According to the Hofstede, *collectivism describes* societies in which "harmony should always be maintained and direct confrontations avoided" (Hofstede et al., 2010, Table 4.2, p. 113) in relations with a "cohesive ingroup" that satisfies people's needs in exchange for "unquestioning loyalty" (Hofstede & Minkov, 2013, p. 7). This group-oriented feature of collectivism lends itself more to the identity-based assumptions underlying SIMSA. At the other end of the continuum is *individualism*, and it describes societies in which the pursuit of personal interests is paramount, and people only "look after themselves and their immediate family" (Hofstede & Bond, 1984, p. 419)[1]. In short, the emphasis on the group (as per collectivism) and the person (a la individualism) renders the use of

[1] While the pursuit of (or emphasis on) personal interest potentially heightens the likelihood of *friction* in individualistic societies (in that the expression of dissenting views—based on diverse interests—may be more mainstream), the pursuit of group goals in collectivist societies potentially normalizes *accord* rather than conflict, which should increase the likelihood of harmony-based predictions for the (dis)advantaged being visible.

Hofstede's collectivism/individualism construction outside of the theoretical remit of SJT's dissonance-induced system justification proposition that has little/nothing to do with individual or collective interests/identities.

The second societal level proxy for harmony (uncertainty avoidance) is, however, more appropriate to a test of SJT, not only because it is a signature assumption under this framework, but because it is less obviously tied to social identity needs in the same way as collectivism. Indeed, according to Hofstede and colleagues, uncertainty avoidance refers to the extent to which members of a society feel "*threatened by uncertain, unknown, ambiguous, or unstructured situations*" (Hofstede & Minkov, 2013, p.8) and "have created beliefs and institutions [e.g., norms for harmony] that try to avoid these" (Hofstede & Bond, 1984, p. 419). In short, whereas an emphasis on *harmony in relation to social relations/ties* makes the use of collectivism index more suited to a test of SIMSA's propositions, the corresponding emphasis on *harmony in relation to social situation* (e.g., the system) makes the uncertainty index more suited to a test of SJT's propositions. This distinction concerning the type of cultural orientation towards harmony is important because it helps to isolate SIMSA's and SJT's harmony-based predictions with regards to system justification amongst (dis)advantaged Asians.

Assumption Checks and Specific Hypotheses

Predictions concerning our assumption check. With regards to the positive association sometimes found between objective status and system justification, we anticipated that such an outcome may be more visible in societies where dissent is somewhat normalized: for example, in societies where individualism and uncertainty tolerance are strong. This is because, in such societies, it should be more permissible for the disadvantaged to dissent against unfavorable systems/regimes, while the advantaged should also be freer to support realities that confer

privileges to them. In short, we not only attempt a resolution of the mixed evidence for the association between objective status and system justification in this initial study, but we also piloted the crucial assumption we make with regards to the role of social identity needs (in the shape of societal proxies for harmony), on the system-justifying attitudes of the (dis)advantaged. We did so by examining the following predictions globally, while highlighting the trends in Asia (vs. the rest of the world):

SIMSA. We anticipated a negative association between objective status and system justification to be visible in societies with a strong orientation towards harmony in relation to social ties (i.e., collectivist societies), while societies with a more individualistic orientation should witness the reverse positive association observed by Brandt (2013). A corollary of the foregoing prediction is that because Asian societies generally orient towards collectivism (Markus & Kitayama, 1991), one should also anticipate a negative association between objective status and system justification in this region compared to other world regions.

SJT. Here, a negative association between objective status and system justification should be most visible in those cultures that are highly avoidant of uncertain *situations*, potentially to reduce the risk of straining societal harmony. Hofstede (1983, p.298) observed that "most Asian countries" tend to score low on this index relative to other regions of the world. Given this observation, we did not anticipate a negative association between objective status and system justification to be visible in Asia, based on SJT, because, this is a region in which the uncertainty avoidance mechanism responsible for a dissonance-induced system justification is less visible.

Method

We analyzed the responses of up to 181,057 participants spread across 84 countries (including 16 Asian nations/regions), which we obtained across four waves (1989-2014) of the nationally representative World Values Survey (WVS) spread over 25 years (for details on how national representation was achieved, please visit the survey collector's webpage via this shortened URL at https://bit.ly/3zkO6Xz). The four waves are Wave 2 (1989–1993), Wave 3 (1994–1998), Wave 5 (2005–2009), and Wave 6 (2010-2014). We excluded Waves 1, 4 and 7 because some of the key variables used in our analysis were unavailable in those datasets.

Focal Predictor

Objective status. Based on Kim et al. (2021; and others, e.g., Piff et al., 2010), we combined measures asking participants to indicate their household income (in the country's respective currency) and their highest level of education. As Kim et al. (2021, p.2) explained, both indicators tap objective status because "education corresponds to the institutionalized form of cultural capital […], and when entering the labor market, it is converted into economic capital [….]" Hence, we standardized both indicators at level-2 (country-year) prior to forming an index of objective status by summing both measures ($r = .32$, $p < .001$).

Proxies for the Harmony Norm as Moderators

Societal collectivism-individualism. We used Hofstede's 1980 measure of societal orientation towards collectivism/individualism to proxy harmony norm linked to social identity. According to Hofstede (1983, p. 299), this scale can be interpreted as a continuum, with nations at the very "top" being most individualist, while those at the very bottom, being "most collectivist." Others in the "middle," are relatively less individualist than societies at the top, and relatively less collectivist than societies at the bottom ($\alpha_{VSM80} = .77$; score range: 0-100). Data

was extracted from https://geerthofstede.com/research-and-vsm/dimension-data-matrix/ (and details on computing this index can be found in Hofstede & Minkov, 2013).

Societal uncertainty avoidance. We used Hofstede's 1980 measure avoidance of uncertainty at the societal level to proxy an orientation towards harmony, reasoning that the need for order (i.e., harmony) should be paramount for societies that strongly avoid uncertainty (meaning that a preference for the status-quo and familiar traditions should also be strong, see https://geerthofstede.com/research-and-vsm/dimension-data-matrix/ and also Hofstede & Minkov, 2013 for computation details). Higher scores suggest strong societal orientation towards uncertainty avoidance ($\alpha_{VSM80} = .72$, score range: 0-100).

In short, the collectivism-individualism index (with its emphasis on harmony and loyalty to a cohesive ingroup) offers an optimal test of SIMSA's propositions because it grounds the harmony norms in the satisfaction of identity needs, whereas the uncertainty avoidance index is most suited for a precise test of SJT because it ostensibly decouples the search for harmony (i.e. uncertainty avoidance) from social identity needs (see Appendix A for correlations between these cultural variables and group harmony).

Outcome Variable: System Justification

System justification has been operationalized (and measured) in numerous ways including, *inter alia*, ideology (e.g., meritocracy, Protestant work ethic, social dominance orientation, Jost & Hunyady, 2015); societal norms (Jost et al., 2015); and even engagement with the electoral processes in one's country (Azevedo et al., 2017; cf. Owuamalam et al., 2022). However, in the current research we relied on an operationalization that is closest to the original phenomenon of outgroup favoritism amongst the disadvantaged that prompted the system justification perspective (Jost & Banaji, 1994) – i.e., support for, or confidence in, government.

To the extent that governments and politicians who run them are seen as an elite club (or group) who set the rules affecting the outcomes of rich/educated vs. poor/uneducated citizens, then less educated/poorer people who embrace a government overseeing rules that negatively impact their economic and educational outcomes can be likened to outgroup favoritism, which proponents of the construct described as a system-justifying attitude (see Jost et al., 2004). This is perhaps why confidence (or trust) in government was used to tap system justification in the seminal test of SJT's dissonance-inspired proposition (see Jost et al. 2003): a measure that is now routinely used in system-justification research (e.g., Brandt, 2013; Caricati, 2019; Szabó, & Lönnqvist, 2021).

We closely followed the foregoing precedents (and theoretical assumptions) to measure system justification with confidence in government. Participants were asked to indicate their level of confidence in 3 relevant societal systems proximally linked to the outcomes of objectively high and low status groups in most nations: "I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?" (these organizations included, their "government," "parliament," "courts," and "political parties;" 1 = *a great deal*, 4 = *none at all*). We chose this measure because: (1) high and low status people ought to be highly *dependent* on the political apparatuses and systems of governance in their nations (Kay et al. 2009), and (2) these establishments are *stable* realities of citizens' existence, which should heighten the relevance of the system motive, (3) especially since being disadvantaged by *inescapable* institutions could lower people's *sense of control* (Kay & Friesen, 2011). In short, the current use of trust in government to index system justification fulfils several auxiliary conditions that enable the system motive (Friesen et al., 2019; Jost, 2019; Laurin et al., 2013), which should make it harder to confirm SIMSA's group-interested predictions, but easier

to find supportive evidence for SJT's strong dissonance-based predictions. We reversed (and summed scores on) this scale so that higher scores meant stronger system justification ($\alpha = .84$).

Assumption Check Measure (Societal Freedoms)

To tap societal freedoms unambiguously, we used country scores for civil liberties that we extracted from Freedom House: the oldest non-partisan organization dedicated to the support and defense of democracy around the world. Specifically, this measure captures (a) how free citizens in a country are to express their opinions and beliefs (including dissenting ones); (b) freedoms (or rights) to organize and form associations, (c) commitment to the rule of law, and (d) personal autonomy and individual rights (for other details, including scoring, see https://freedomhouse.org/about-us/our-history). Higher scores on this index indicate greater democratic freedoms and lower scores indicate more limitations to civil liberties. To find supportive evidence that societal freedoms enable the pursuit of self-interested engagement with societal systems, as we assume, one should find a positive association between objective status and system justification in freer societies, but a negative (or null) association between both constructs in regions/states where such civil liberties are somewhat curtailed.

Control Variable

To be sure that any putative system-justifying attitudes linked to group status was uncontaminated by other sources of social status, we extracted an index of subjective social status that was measured with the standard status ladder: "People sometimes think of the social status of their families in terms of being high or low. Imagine a ladder with 10 steps. At step one stands the lowest status and step 10 stands the highest. Where would you place your family on the following scale?" (responses ranged from: 1 = *low status*, to 10 = *high status*).

Results and Discussion

Data (and materials) for the current analyses are available to the public via the WVS website (see http:// https://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp). Analysis scripts can be found on our project's OSF website via: https://osf.io/qc6na/). Table 1 presents the zero-order correlations amongst variables in this study, showing, notably, a negative association between collectivism-individualism and uncertainty avoidance: That is, people in collectivism-oriented societies tend to avoid uncertainty more.

Table 1.

Bivariate Zero-Order Correlations Key Variables in Study 1

		1	2	3	4	5	6	7
1.	System justification	1						
2.	Collectivism-individualism	-0.039*	1					
3.	Uncertainty avoidance	-0.324*	-0.251*	1				
4.	Income	0.046*	0.117*	-0.087*	1			
5.	Education	-0.018*	0.078*	-0.042*	0.300*	1		
6.	Objective status	0.007*	-0.0004	-0.007*	0.744*	0.751*	1	
7.	Subjective status	0.042*	0.121*	-0.041*	0.464*	0.337*	0.457*	1
8.	Civil liberties	0.150*	-0.588*	-0.101*	-0.026*	-0.055*	0.006*	-0.051*

Note. All significant correlations are at the *$p < .01$ level.

Analytical Strategy

We adopted a multi-level modelling (MLM) approach given the hierarchical nature of the comparative longitudinal WVS survey responses obtained from numerous countries (Fairbrother 2014). One issue guided the specific MLM models that we used: the question of whether researchers have fairly/accurately tested a given theoretical proposition or not, especially in the context of competing theories. For example, a *purist* perspective on theory-testing would argue that if a theory envisages a universal phenomenon (i.e., a fixed association, no matter where [e.g., nation]; when [e.g., time] or for whom [e.g., individual differences in subjective appraisals of status] these tests are applied), then only the theoretically specified realities (or moderators)

should be accommodated in testing its predictions. In statistical terms, this purist idea is equivalent to a random intercept MLM, as represented in the following formula:

$$\gamma_{ijk} = \beta_0 + \beta_1 X_{1ijk} + U_{0k} + U_{0jk} + e_{0ijk}$$

Where *ijk* denotes respondent *i* surveyed during wave *j* in country *k*. Also,

β_0 = mean effect across all countries.

β_1 = fixed effect of X_{ijk}

U_{0k} = random effect of country *k* (level-3)

U_{0jk} = random effect of wave *j* in country *k* (level-2)

Note #1. These two random effects respectively assume that: (a) although the slope of the status-induced system justification effect *is the same* in each nation, values on system justification itself could vary across nations outside of the effect of status (or moderators stipulated by the relevant theory). Similarly, (b) differences on the system justification measure are also possible between years (even in the same country), that are not necessarily connected to status or the other moderators stipulated by the relevant theories.

e_{0ijk} = residual error term of respondent *i* in wave *j* in country *k*

A *realist* perspective, on the other hand, would, in addition, permit the possibility that unknown (and therefore unspecified) moderators could impact the associations of interest, so that the key associations could be amplified or deflated in strength, or it can be null, positive/negative for some and not others. Statistically, this idea is equivalent to a random intercept and slope MLM (Schmidt-Catran & Fairbrother, 2016), represented in the following formula:

$$\gamma_{ijk} = \beta_0 + \beta_1 X_{1ijk} + U_{0k} + U_{1k} X_{1ijk} + U_{1jk} X_{1ijk} + U_{0jk} + e_{0ijk}$$

Here, *ijk* denotes respondent *i surveyed during* wave *j* in country *k*. Also,

β_0 = mean effect across all countries.

β_1 = fixed effect of X_{ijk}

U_{0k} = random effect of country *k* (level-3)

U_{0jk} = random effect of wave *j* in country *k* (Level-2)

U_{1k} = random effect of X_{ijk} due to country *k* (level-3)

U_{1jk} = random effect of X_{ijk} due to wave *j* in country *k* (level-2)

Note #2. These two additional random effects respectively assume that: (a) the slope of the status-induced system justification effect could be *different* across nations and, (b) differences on the status-induced system justification effect could differ across waves in each country.

e_{0ijk} = residual error term of respondent *i* in wave *j* in country *k*

We adopted both perspectives to offer an incisive test of SJT and SIMSA. To do so, we fitted a 3-level model (with maximum likelihood estimator) in which participants' responses (Level 1) were nested within country-waves (Level 2), that were in turn nested within countries (Level 3). In these models, societal scores for civil liberties (Model 1), collectivism-individualism (Model 2) and uncertainty avoidance (Model 3) were specified as moderators of the association between objective status and system justification (see Table 2a for full model results). We started with random intercept models to accommodate a purist test of propositions derived from SJT and SIMSA, and then added random slopes later for a realist test of both perspectives. Because the purist test assumes that only the variables specified by the theory are relevant to a test of its predictions, subjective status was only controlled for in our realist models.

Assumption Check Analysis

Globally, we examined the role of perceived societal freedoms in the system justification tendencies of objectively high and low status people in regions with more (vs. less) civil liberties, where the harmony norm ought to be less stringent (at least theoretically). Confirming the assumption we make about the role of societal freedoms in the relation between status and system justification, we found a significant civil liberties x objective status interaction, although this interaction was limited to the purist test (see Table 2a, Model 1). Consistent with assumptions, simple slope analyses for this 2-way interaction revealed a positive association between objective status and system justification in societies with more civil liberties (M+1SD: $b_{\text{purist}} = .14$, $se = .01$, $p < .001$), but a negative association in societies with less civil liberties (M-1SD: $b_{\text{purist}} = -.12$, $se = .012$, $p < .001$). Asian countries tend to cluster around the low societal freedoms end of the democracy continuum (see heat map in Appendix B, Figure B1).

Purist Test: The Random Intercept Model

Across Models 2-3, we found an *overall* positive association between objective status and system justification (see Table 2a, upper panel). Importantly, however, this main effect (i.e. association) was qualified by proxies of societal harmony across the 2 models. When we unpacked this 2-way interaction via simple slopes, we found that a positive relation between objective status and system justification was limited to: (a) individualist societies (b = .24, se = .01), and (b) societies that are highly tolerant of uncertainty (b = .16, se = .013; see Figure 2, upper panel). In contrast, and consistent with our harmony-based predictions, we found a negative association between objective status and system justification in: (a) societies that are highly avoidant of uncertainty (b = -.030, se = .012), and (b) collectivist societies (with a large concentration being in Asia, b = -.12, se = .01; see Figures 2a-b, upper panel, as well as the collectivism-individualism heat map). This latter result, in particular, is supportive of SIMSA's propositions because it shows that the confluence of two identity needs (group harmony and ingroup identification or loyalty) optimizes system justification tendencies amongst the disadvantaged in collectivist societies. Results are also supportive of SJT because it shows that being weary of chaotic/uncertain situations bolsters system support amongst the disadvantage.

Table 2a.
Interaction between Objective Status and Harmony Proxies in Predicting System Justification (Waves 1989-2014).

	Model 1 (Civil liberties)	Model 2 (Individualism)	Model 3 (Uncertainty avoidance)
Purist Test: Random intercept	*b*(*se*)	*b*(*se*)	*b*(*se*)
Objective Status (OS)	-.008 (.008)	-.060 (.009)***	-.064 (.009)***
Moderator (M)	-.237 (.088)**	-.008 (.008)	-.044 (.006)***
OS*M	.075 (.005)***	.007 (<.001)***	-.004 (<.001)***
Constant	9.180 (.148)***	9.202 (.184)***	9.136 (.134)***
Pseudo R^2	0.36	0.56	0.56
AIC	860393	597642	597879
BIC	860464	597710	597947
N-size	178,030	127,364	127,364
Country-waves	152	108	108

Nations	84	54	54
Realist Test: Random intercept and slope	Model 1	Model 2	Model 3
Objective Status (OS)	.056 (.03)	.033 (.038)	-.037 (.040)
Moderator (M)	-.227 (.091)*	-.007 (.008)	-.046 (.006)***
OS*M	.056 (.018)**	.006 (.002)***	-.003 (.002)
Subjective status	.169 (.023)***	.187 (.024)***	.187 (.024)***
Constant	9.182 (.152)***	9.219 (.191)***	9.169 (.136)***
Pseudo R^2	0.41	0.60	0.60
AIC	789414	536204	536178
BIC	789534	536320	536294
N-size	166,680	114,739	114,739
Country-waves	144	101	101
Nations	82	52	52

Note. ^$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$. Reduced country-*N*s reflect the number of nations represented in Hofstede's cultural dimensions. A version of the purist models with subjective status as a covariate is included in our supplementary document (SM2: Table SM2i), for those interested in what the model results look like if subjective status was added in that model. However, we should caution that for the purpose of the tests here, a purist model with subjective status as covariate is not ideal because it introduces an event that was not purely stated by the relevant theories being tested here.

Realist Test: Random Intercept and Slope Model

Again, we found an objective status x harmony proxy interaction in predicting system justification (see Table 2, lower panel), this time only in regard to Model 2 (collectivism-individualism index of the harmony norm), but not for Model 3 (uncertainty avoidance). When we unpacked this 2-way interaction in Model 2, we found, again, that the negative association between objective status and system justification was only reliably visible in collectivist societies (as is Asia, $b = -.178$, $se = .055$). Meanwhile, a positive association between both variables was seen in individualist societies ($b = .113$, $se = .055$; see Figure 2c-d, lower panel). Hence, results from this unconstrained *realist* model continue to support SIMSA's propositions, whereas the uncertainty avoidance-linked system justification did not materialize here.

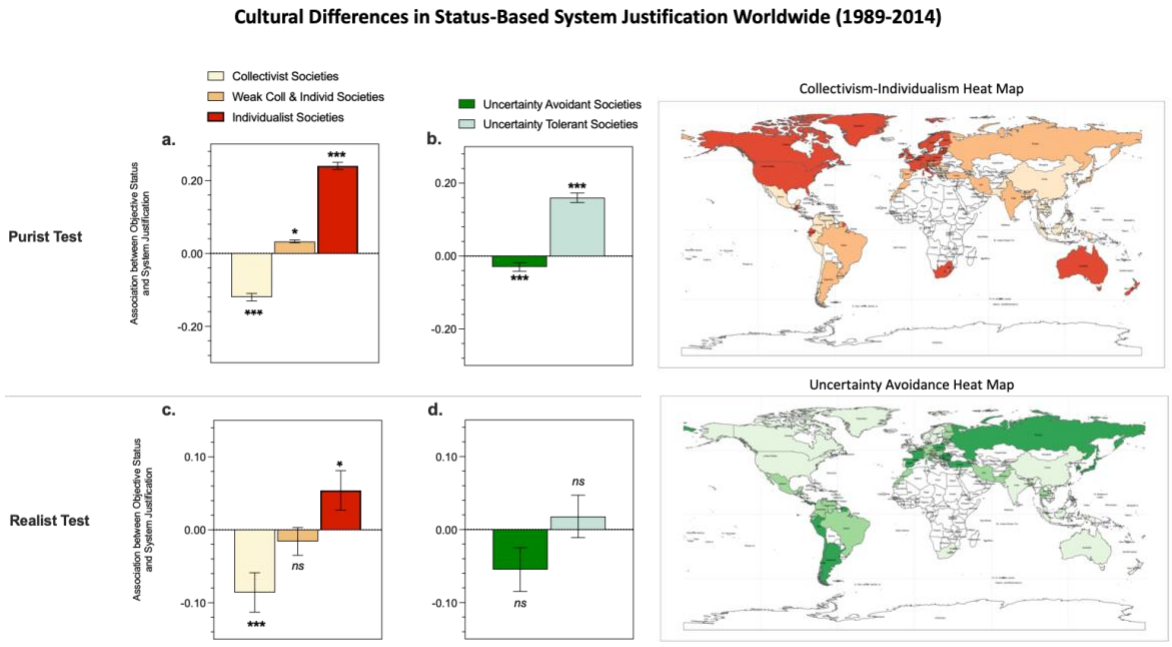

Figure 2. The association between objective status and system justification is moderated by two proxies of social harmony: societal levels of collectivism-individualism (a & c), and societal levels of uncertainty avoidance (b & d). Represented on y-axes are regression estimates. Error bars are standard errors. *ns* = nonsignificant; **p* < .050; ***p* < .010, ****p* < .001.

Asia-Specific Analysis

Asia is largely collectivist in orientation (as the relevant heat map in Figure 2 shows) and our analysis of global trends already show the anticipated negative association between objective status and system justification in collectivist regions. However, critics might argue, still, that there are collectivist societies in other global regions (e.g., South America), and that the relevant association could have been due to these other nations (not Asia). Therefore, the argument might be that if Asian *societies* are largely homogenously collectivist, then there should be a negative association between objective status and system justification, across these societies. We therefore created a societal dummy variable that we termed Asia (rest of the world = 0; Asia = 1), and replaced the collectivism/individualism variable in Model 2 with the new Asia dummy, and we did so for the purist and realist models (see Table 2b). Here the Asia dummy*objective status interaction was statistically significant in the purist (b = -.18, se = .017, p < .001) and realist (b =

-.16, *se* = .070, *p* = .021) models. When we unpacked the simple slopes for the Asia dummy*objective status interactions, we found, as expected, a reliable negative association between objective status and system justification in Asia but, a positive association between them elsewhere in the world, although these effects were most visible in the purist model (Asia, *b* = -.123, *se* = .015, *p* < .001; rest of the world, *b* = .060, *se* = .009, *p* < .001) than in the realist model (Asia, *b* = -.160, *se* = .060, *p* = .008; rest of the world, *b* = -.019, *se* = .036, *p* = .595).

Table 2b.
Interaction between Objective Status and Asian Dummy in Predicting System Justification (Waves 1989-2014).

	Purist model	Realist model
	b(*se*)	*b*(*se*)
Objective Status (OS)	.060 (.009)***	-.019 (.036)
Asia dummy (Asia)	1.532 (.289)***	1.523 (.294)***
OS*Asia	-.183(.017)***	-.160 (.070)*
Subjective status	--	.156 (.008)***
Constant	8.778 (.149)***	8.782 (.153)***
Pseudo R^2	0.34	0.40
AIC	887712	816756
BIC	887783	816857
N-size	186,740	172,300
Country-waves	158	150
Nations	89	87

Note. *p < .05, **p < .01, ***p < .001

Summary of Key Findings

Do social identity considerations (e.g., cultural group norms for harmony) help to shed light on the mixed association between objective status and system justification across the globe, and Asia in particular? When we unpacked the evidence across different global regions/nations, we found two things: (a) system justification was a positive function of objective status in regions/nations where the group norm for harmony was not so strong. Here, the disadvantaged seemed freer to voice dissent against the system, while their advantaged counterparts were freer to embrace social realities that ostensibly support their privilege. (b) In contrast, a negative association between objective status and system justification was most visible in societies with a relatively stronger group norm for harmony: In other words, the harmony group norm seemed to encourage the objectively disadvantaged in collectivist societies (including Asia) to embrace the

status quo, while it seemed to discourage their advantaged counterparts from overtly displaying their support for convenient societal realities. In short, we resolve the mixed associations reported elsewhere in the system justification literature between objective status and system justification (e.g., Brandt, 2013 vs. Li et al., 2020) by showing that these associations can be constrained by social identity needs (e.g., adherence to cultural prescriptions for harmony).

But are the trends from the collectivism-individualism analysis only supportive of SIMSA, especially in light of the fact that uncertainty avoidance–a signature SJT assumption—is also present in collectivist societies? That is, supporters of SJT might argue that it is in fact the avoidance of uncertainty alone (not in combination with group identity factors (e.g., loyalty) that caused system justification to increase in collectivist societies. There is at least one reason why an interpretation of the collectivism analysis along SJT's strong dissonance-based explanation seems untenable. This is because SJT's dissonance-based predictions *should not* be relevant in situations that intensify the salience of personal motives (e.g., strong individualism orientation) or group motives (e.g., strong collectivism orientation; Jost et al., 2004, p. 909). Hofstede (1983) interprets the collectivism-individualism index as ranging from highly individualist nations (those placed at the very *top* of the measure, through weaker individualistic and collectivistic societies [i.e., those placed at the *middle*] to highly collectivistic societies [those placed at the very *bottom*], Hofstede, 1983, p. 299). Following the logic behind Hofstede's country classifications on this dimension, we reasoned that the strong pursuit of personal interest (as people in individualist societies ordinarily do) and collective interest (as people in collectivist societies customarily do) should be relatively *weaker* (though not completely absent) in societies at the middle of the collectivism-individualism continuum. This makes regions at the middle of this continuum a likely context in which to expect SJT's dissonance-based prediction to manifest

most strongly because they are neither strongly collectivistic nor individualistic in orientation. When this possibility was investigated (i.e., looking at societies at the middle of the collectivism-individualism continuum), we found a positive (not a negative) association between objective status and system justification from the purist test (b = .033, se = .004, p =.022) that becomes non-significant in the realist model (b = -.016, se = .019, p = .387; see Figure 2).

Study 2

It is possible to argue that the operationalization of collectivism-individualism conflated identity- and harmony-relevant associations with system justification, especially since harmony and group identification should be strongest in collectivist societies (Hofstede et al., 2010). Hence, one argument might be that it is impossible to determine whether the patterns of associations between collectivism-individualism and system justification was due to (a) ingroup identification or (b) adherence to the harmony norm. But the fact that societal group identity and adherence to harmony (a group need) coincide in collectivistic societies (see Appendix A) actually presents the optimal conditions envisaged by SIMSA's superordinate ingroup bias proposition, which was why the patterns predicted by this framework was unsurprisingly observed in that context. Nonetheless, it is entirely conceivable too that it was the harmony norm alone, rather than its combination with group identification that produced the collectivism effect in Study 1. This argument is crucial because it implies that a dissonance-based system motive might be operational too, especially if group identification did not play a role in the collectivism effect. To untangle group identity and harmony-based associations, therefore, we measured both

the crucial diagnostic moderator (i.e., national ingroup identification[2] that differentiates SIMSA's and SJT's predictions) and group harmony. In terms of specific hypotheses, we predicted:

> **based on SIMSA**, a positive association between national group identification and system justification amongst objectively disadvantaged Asians (so that group motives heighten system-justifying attitudes), with the size of this relationship being stronger when an endorsement of the harmony norm is high vs. low.
>
> **based on SJT**, a negative association between national group identification (see Kay et al. 2009, p. 428) and system justification amongst objectively disadvantaged Asians (so that system-, rather than group- motives heightens system-justifying attitudes), with the size of this relation being stronger when the harmony norm is high vs. weak.

Finally, for the advantaged, we did not anticipate the size and direction of the association between national ingroup identification and system justification under conditions of high vs. low harmony *a priori*, due to the divergent nature of the pattern of results that are theoretically plausible for this demographic, as discussed in our general introduction.

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[2] It is important to note that a parallel version of SJT now accommodates a positive association between national identification (or attachment) and system justification. As van der Toorn, Nail, Liviatan, and Jost (2014, p. 52) explained: "strengthening one's attachment to the nation provides a means of attaining the goal of system justification […]." We should point out that the current investigation tests the original formulation of SJT's system motive explanation, which assumes that interests that are tied to groups (e.g., one's national ingroup) are independent from system justification motives amongst the disadvantaged (see Jost & Banaji, 1994, p. 10). African Americans, for example, as a disadvantaged group within American society, can either focus on their identity as Blacks (subgroup), or as Americans (superordinate group), and identify with these ingroups. Importantly, the American "ingroup" also provides the context for an assessment of African-Americans' (dis)advantaged position relative to competing outgroups within this inclusive entity. In short, our test is not about the parallel version of SJT, because it offers no distinctive insight into system-justifying tendencies of the disadvantaged beyond identity/interest-based perspectives like social identity theory (Tajfel & Turner, 1979). Our focus is on SJT's core proposition, of an *inverse* relationship between group identities (at the sub- and super-ordinate levels, Kay et al., 2009, p .428) and system justification amongst the disadvantaged, because it was SJT's signature criticism that "group-justification" accounts cannot explain system-justifying attitudes amongst the disadvantaged that gave rise to the strong dissonance-based system justification thesis that we tested.

Method

We capitalized on the opportunity provided by Waves 3 and 4 (2010-2016) of the Asia-barometer[3]—a nationally representative survey of 39,098 participants spread across 14 Asian countries—to test the assumptions underlying the current investigation. National representativeness in the Asia Barometer survey was achieved via probabilistic sampling, based on census household lists or a multistage area approach and the method for selecting sampling units was always randomized and, sometimes, weighted to ensure that rural areas and minority populations are adequately and correctly covered (for details please go to the survey collector's webpage at http://www.asianbarometer.org/survey/survey-methods). We focused on Asia because this is the region where the negative association between objective status and system justification is consistently found (see Li et al., 2020, and also Study 1) and the region with strong group norms for harmony. We wanted to see, at the *individual level of analysis*, whether personal adherence to the cultural group norm for harmony (rather than societal level orientation toward this norm) explain system justifying tendencies of objectively low and high-status Asians who are strongly (as per SIMSA) or weakly (as per classic dissonance-based SJT account) identified with their national ingroup. National demographics and scale averages are shown in Table 3.

Predictor Variables

Objective status. This was measured in a similar way to the typical approach in the literature via participants' reported income bands and level of education. Given the differences in these metrics across nations, we standardized income bands and level of education within

[3] We focused on Waves 3 and 4 because the complete list of items measuring the Asian harmony norm and nationalism (two central measures in our analysis) are not represented in Waves 1 and 2 of the Asia Barometer. Although Asia Barometer Wave 5 (the latest survey) is out, this has not yet been fully released to the public, and only data for a few countries have been published since 2nd March 2021 (Taiwan, Philippines, Mongolia and Vietnam). No announcement has been made on the full release of Wave 5 for all other countries in East and Southeast Asia.

countries prior to aggregating them to form a single index of objective status ($r = .35$, $p < .001$). We also included the same 10-point status ladder measure of subjective status described in Study 1 as a control variable.

National ingroup identification. Two items tapped the satisfaction (i.e., pride, see Leach et al., 2008, p.144) and commitment (i.e. loyalty, see Cameron, 2004, p.255) dimensions of group identification. With regards to pride/satisfaction, participants were asked: "How proud are you to be a citizen of [country x]?" Responses were obtained on a 4-point scale (1= *very proud*, 4 = *not proud at all*). With regards to loyalty/commitment, participants were asked: "a citizen should always remain loyal only to his country, no matter how imperfect it is or what wrong it has done." Responses were obtained on a 4-point scale (1= *strongly agree*, 4 = *strongly disagree*). This latter item is especially important because it conceptually captures a basic tenet of collectivism, which should allow us to more directly compare emergent trends in this study to those that we found in Study 1, with regards to the collectivism-individualism analysis. Both items were moderately correlated ($r = .30$, $p < .001$), and were reversed scored prior to being averaged, so that higher scores meant stronger national ingroup identification.

Harmony norm. This was measured with 3 items at the level of the group, given the current interest in group motives. For example: "In a group, we should avoid open quarrel to preserve the harmony of the group"; "Even if there is some disagreement with others, one should avoid the conflict"; "A person should not insist on his own opinion if his co-workers disagree with him" (1 = *strongly agree*, 4 = *strongly disagree*). Again, scoring on this scale was reversed prior to being averaged to form a single scale score ($\alpha = .68$).

Table 3.

Mean Scale Scores and Demographic Details Across Asian Nations/Regions

	Country	Wave	Age	% Male	*N*-size	System-justifying Trust in Gov.	National identification	Harmony Norm
1.	Japan	W3	55.73	0.47	1880	2.149	2.712	2.788
		W4	56.43	0.47	1081	2.311	2.750	2.796
2.	Hong Kong	W3	51.72	0.46	1207	2.692	2.914	2.924
		W4	48.27	0.43	1217	2.463	2.720	2.689
3.	S. Korea	W3	45.34	0.50	1207	1.961	2.590	2.797
		W4	45.73	0.50	1200	2.061	2.432	2.618
4.	China	W3	45.30	0.53	3468	3.306	3.286	2.821
		W4	49.26	0.49	4068	3.078	3.282	2.864
5.	Mongolia	W3	40.62	0.44	1210	2.048	3.668	3.167
		W4	40.77	0.43	1228	2.184	3.683	3.260
6.	Philippines	W3	40.85	0.50	1200	2.411	3.174	3.275
		W4	43.06	0.50	1200	2.400	3.050	3.318
7.	Taiwan	W3	46.07	0.52	1592	2.208	3.051	2.885
		W4	47.85	0.51	1657	2.133	2.953	2.827
8.	Thailand	W3	46.92	0.48	1512	2.654	3.781	3.213
		W4	45.55	0.47	1200	2.638	3.501	3.129
9.	Indonesia	W3	41.80	0.50	1550	2.524	3.269	3.202
		W4	44.63	0.50	1550	2.602	3.364	3.272
10.	Singapore	W4	40.84	0.52	1039	2.955	3.002	2.851
11.	Vietnam	W3	43.71	0.55	1191	3.407	3.683	3.136
		W4	36.04	0.50	1200	3.232	3.545	3.259
12.	Cambodia	W3	38.72	0.50	1200	2.934	3.541	3.276
		W4	40.68	0.50	1200	2.672	3.427	3.239
13.	Malaysia	W3	41.39	0.50	1214	2.899	3.330	3.174
		W4	41.63	0.50	1207	2.855	3.317	3.275
14.	Myanmar	W4	41.72	0.50	1620	2.527	3.807	3.503

Note. Gov. = government.

Outcome Variable

System justification. We relied on an identical measure of trust in societal institutions that we used in Study 1. Participants were required to indicate their trust in their: "national government," "courts," "parliament," "local government," and "political parties" (1 = *a great deal*, 4 = *none at all*), and we chose these rather important systems of governance because they satisfy SJT's system dependency caveat (Jost, 2019; Friesen et al., 2019). These 5 items formed a reliable index ($\alpha = .86$) and were reversed-scored prior to being aggregated to form a scale, with higher scores indicating greater levels of system justification.

Results

Data (and materials) for the current analyses is available to the public via the Asia Barometer surveys (see http://www.asianbarometer.org/data/core-questionnaire). Analysis scripts can be found on our project's OSF website via: https://osf.io/qc6na/. Table 4 presents the bivariate zero-order correlations amongst variables in this study. Consistent with our assumption that strong national identification is associated with the harmony norm in Asian countries, we found a positive association between national ingroup identification and the harmony norm (r = .32, p < .001).

Table 4

Bivariate Zero-Order Correlations for Study 2

		1	2	3	4	5	6
1	System justification	-					
2	National ingroup identification	.28	-				
3	Harmony norm	.09	.32	-			
4	Subjective status	.07	.07	.03	-		
5	Education	-.23	-.19	-.11	.17	-	
6	Income	.00^{ns}	-.03	-.07	.23	.35	-
7	Objective status	-.09	-.04	-.05	.25	.74	.78

Note. All correlation coefficients are significant at p < .01 except those with the "ns" superscript, which are nonsignificant. ^p = .03

It is possible to argue that national group identification, system justification and group harmony are one and the same manifestations of system justification. Hence, we performed a 2-level confirmatory factor analysis, finding that a single latent factor model which assumes that all 3 variables are manifestations of system justification provide a poor fit to the data (CFI=.749, TLI = .677, RMSEA = .084 [.083, .085], p < .001, SRMR within = 0.095, SRMR between = .312) whereas the 3-factor solution that recognizes the independence of these constructs fit the data better (CFI = .975, TLI = .967, RMSEA=.027 [.026, .028], p = .999, SRMR within = 0.020, SRMR between = .149), $\Delta\chi^2$ (4) = 12139, p < .001.

Main Analysis: Strategy

We took a similar approach to the in Study 1 to perform a purist and a realist test of the predictions relevant to the current study. In both tests, we fitted a 2-level maximum likelihood mixed model in which participants' responses (level 1) were nested within countries (level 2). We excluded time/wave as a nesting variable (by averaging across time) because there were only two waves for most nations, and one wave for others (wave ICC = .001; country ICC = .337). Given that our interest was primarily on level-1 associations, we did two things: (a) predictor variables were centered within nations more to precisely accommodate the estimation of slope and slope variance (Algina, & Swaminathan, 2011; Enders & Tofighi, 2007) and; (b) the realist models were estimated with national scores for the harmony norm fixed to its grand mean based on the theoretical assumption that it is a commonly shared attribute in Asia. We should note that the results with or without implementing point "b" were essentially the same (see Supplementary Material, SM2: Table SM2ii).

Full model results are presented in Table 5 and, for the sake of transparency, we also presented the outcome of not only the model using the combined index of objective status (Model 1), but also the equivalent models when education (Model 2) and income (Model 3) were analyzed separately. As in Study 1, we controlled for subjective status in our realist model, although results were practically the same when subjective status was excluded from this model (see Supplementary Material, SM3). Consistent with SJT's strong dissonance-based explanation and other tests in the Asian context, objective status was significantly *negatively* associated with system justification in both the purist and realist models (see Table 5). That is, objectively disadvantaged Asians (the less-educated and low-income earners) placed a higher degree of trust in their country's institutions of governance than did their advantaged counterparts (the well-

educated and high-income earners). The expectation that personally endorsing the harmony norm would be positively associated with citizen's trust in their systems of governance also received support in the purist and realist models (see Table 5). Underscoring the idea that system rationalizations can serve group interests (as per SIMSA), we also found that system justification was a positive function of national ingroup identification for disadvantaged and advantaged Asians alike (see Table 5)[4]. The critical question, however, focuses on members of the disadvantaged, low status groups. Here, we were interested in whether system justification is stronger when national ingroup identification was strong (as per SIMSA) or weak (as per the strong dissonance-based SJT) and whether this is qualified also by the endorsement of the harmony group norm. To answer these questions, we probed the significant objective status x harmony norm x national identification interaction in both the purist and realist tests (see Table 5), by examining the simple association (Aiken & West, 1991; Hayes, 2015) between national identification and system justification amongst the objectively (dis)advantaged, when their harmony norm was weak (M-1SD) versus strong (M+1SD).

Objectively low in status (M-1SD). Consistent with SIMSA, but contrary to the strong dissonance-based SJT, results from a simple slope analysis revealed that although national identification was positively associated with system justification when endorsement of the harmony norm was both weak (b_{purist} = .136, se = .011; $b_{realist}$ = .138, se = .027) and strong (b_{purist} = .189, se = .011; $b_{realist}$ = .189, se = .027), this positive association was greater in size when the

[4] A simulation-based sensitivity analysis was performed on models with either fixed and random slopes and the combined index of objective social status as predictors. Results indicated that our design has sufficient statistical power (80%, Cohen, 1988) to detect an effect size of about -0.035 for the three-way interaction between Objective Status (OS), Harmony Norm (HN) and National Identification (NI; see Appendix C).

endorsement of this norm was strong compared to when it was weak ($\Delta b_{purist} = .053$, $Z = 3.63$; $\Delta b_{realist} = .051$, $Z = 3.43$, see Figure 3). Hence, among the disadvantaged, national ingroup identification positively predicted system justification most strongly when participants endorsed a cultural group norm of harmony, regardless of whether a purist vs. realist test was considered.

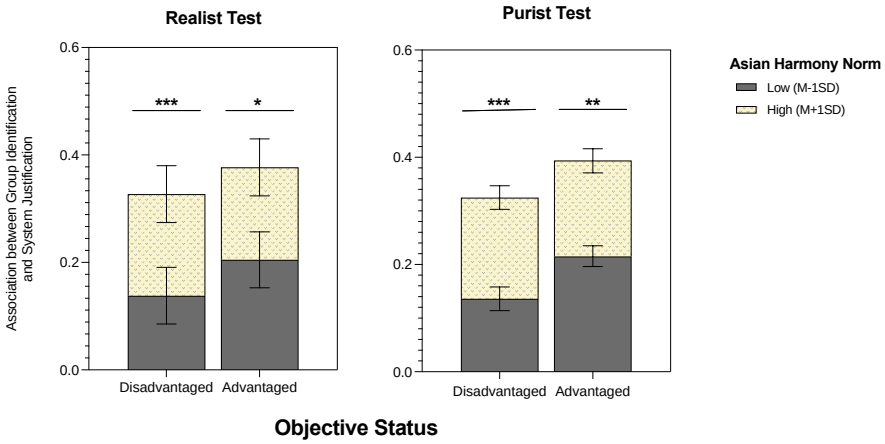

Figure 3. The association between superordinate identification (i.e., national pride/loyalty) and system justification amongst objectively low status (M-1SD; disadvantaged) and high status (M+1SD; advantaged) Asians as a function of the harmony norm. Estimates on the y-axis are regression coefficients. Contrasts are within bars. Error bars are 95% CIs. *$p < .025$, **$p = .010$, ***$p < .001$.

Objectively high in status (M+1SD). Results from a simple slope analysis showed that although national ingroup identification was, again, positively associated with system justification when endorsement of the harmony norm was both weak ($b_{purist} = .215$, $se = .010$; $b_{realist} = .206$, $se = .027$) and strong ($b_{purist} = .179$, $se = .012$; $b_{realist} = .172$, $se = .027$), this positive association was significantly weakened (in terms of magnitude) among objectively advantaged Asians when the norm for harmony was strongly (vs. weakly) endorsed ($\Delta b_{purist} = -.036$, $Z = 2.64$; $\Delta b_{realist} = -.034$, $Z = 2.41$, see Figure 3).

Table 5.
Interaction between Objective Status, Harmony Norm and National Ingroup Identification in Predicting System Justification.

	Model 1 (Combined Status Index)	Model 2 (Education)	Model 3 (Income)
Purist Test: Random Intercept	*b(se)*	*b(se)*	*b(se)*
Objective Status (OS)	-0.065 (0.004)***	-0.027 (0.001)***	-0.018 (0.002)***
Harmony Norm (HN)	0.064 (0.006)***	0.066 (0.005)***	0.068 (0.006)***
National Ingroup Identification (NI)	0.180 (0.006)***	0.190 (0.006)***	0.184 (0.006)***
OS*HN	0.005 (0.007)	-0.001 (0.002)	0.008 (0.005)
OS*NI	0.021 (0.007)**	0.006 (0.002)*	0.013 (0.005)**
HN*NI	0.008 (0.010)	0.009 (0.009)	0.007 (0.010)
OS*NI*HN	-0.052 (0.011)***	-0.012 (0.004)**	-0.035 (0.008)***
N	32,479	37,523	32,528
Constant	2.60 (0.106)	2.60 (0.107)	2.60 (0.106)
Pseudo R^2	0.37	0.38	0.36
AIC	52757.62	60664.49	53088.09
BIC	52841.50	60749.82	53171.99
Realist Test: Random intercept and slope	Model 1	Model 2	Model 3
Objective Status (OS)	-0.071 (0.011)***	-0.029 (0.005)***	-0.024 (0.009)*
Harmony Norm (HN)	0.077 (0.011)***	0.074 (0.012)***	0.078 (0.013)***
National Ingroup Identification (NI)	0.176 (0.025) ***	0.182 (0.027)***	0.179 (0.025)***
OS*HN	-0.001 (0.007)	-0.002 (0.002)	0.006 (0.005)
OS*NI	0.015 (0.007)*	0.004 (0.002)	0.010 (0.005)*
HN*NI	0.008 (0.010)	0.011 (0.009)	0.008 (0.010)
OS*NI*HN	-0.049 (0.012)***	-0.012 (0.004)**	-0.035 (0.008)***
Subjective Status	0.022 (0.005)***	0.020 (0.005)***	0.018 (0.005)***
Societal Harmony Norm (national mean)	0.637 (0.237)*	0.710 (0.242)**	0.569 (0.249)*
N	31,226	35,631	31,268
Constant	2.58 (0.108)	2.57 (0.110)	2.58 (0.107)
Pseudo R^2	0.42	0.43	0.40
AIC	50208.02	56899.40	50520.20
BIC	50425.09	57119.91	50737.31

Note. *$p < .05$, **$p < .01$, ***$p < .001$. A version of the purist model with subjective status included as a covariate is included in our supplementary document (SM2: Table SM2iii), although similar a caveat to the one provided in the footnote for Table 2 above also applies here.

Summary of Key Findings

Here, we not only replicate the overall negative association between objective SES and system justification in the harmony-seeking Asian society (as in Study 1), but we also provide

the first evidence that adherence to the harmony norm amplifies system justification tendencies amongst objectively disadvantaged Asians who are strongly invested in their nation, while deflating the same tendencies amongst their privileged counterparts. The fact that we obtained these associations when a measure of national identification incorporating the loyalty dimension was used (as prescribed by collectivism), corroborates the interpretation of the patterns that we found in Study 1 with respect to our collectivism analysis, as being driven by social identity considerations (as per SIMSA) rather than by a system motive (as per strong SJT).

General Discussion

Objectively disadvantaged Asians tend to trust their societal systems more than advantaged Asians do. But the reasons for this puzzling association have hitherto been unclear. In the current study, we tested two competing explanations that refer to a social identity motive (SIMSA) and an autonomous system-level motive (SJT). Based on SIMSA, we predicted that objectively disadvantaged Asians are more likely to place their trust in their nation's institutions of governance as a function of pride in their inclusive national ingroup. We reasoned too, based on SIMSA, that this system-justifying attitude would be most visible when disadvantaged Asians subscribe to a cultural ingroup norm that prescribes harmony. In testing these hypotheses, we responded to Jost's (2019) critique that SIMSA refers to superordinate identities without considering the specific contents of these identities. In contrast, based on the strong dissonance-based SJT, we reasoned that social identity considerations should not play a role in system-justifying tendencies amongst the objectively disadvantaged in Asia and, as such, that the occurrence of system justification for this demographic ought to be most visible under the conditions of *weak* national group identification.

Our results provided more support for SIMSA than for the strong dissonance based SJT (see Table 6). First, and consistent with both the strong dissonance-based SJT and Li et al.'s (2020) findings, we found a negative association between objective status and system justification across societies with a strong need for social harmony (especially in Asia). But what initially looked like supportive evidence for SJT's strong dissonance-based explanation (especially considering the associations in Study 2), unraveled when the diagnostic condition of weak national ingroup identification was considered. Indeed, we found that Asians supported their systems of governance particularly strongly when a sense of pride in (or loyalty to) their nation was strong (not weak), and this association was not to limited to the disadvantaged (it occurred for the advantaged too). These outcomes are more consistent with SIMSA than with SJT's strong dissonance-based explanation because they show that system justification is at its highest when the need for a positive social identity is strongest amongst the disadvantaged. These results also corroborate similar findings that have been reported elsewhere in Latin America, even when status is operationalized at the subjective level (e.g., Vargas-Salfate & Ayala, 2020), while also confirming the positive association often found between system justification subjective status (e.g., Brandt et al., 2020; Li et al., 2020).

Table 6.

Summary of Diagnostic System Justification Tendencies Amongst the Disadvantaged: How did both Theories Fare?

	Key Results		**SIMSA Superordinate Ingroup Bias Thesis**				**SJT's Strong Dissonance-Based Thesis**				**Comments**
			Prediction	Test Outcome			Prediction	Test Outcome			
				Purist	Realist			Purist	Realist		
Study 1 (Models 2-3)	SJ on OS		Non-committal (see comments column)	--	--		Negative association	**X**	**X**		SIMSA predicts a moderation: Associations between SES & SJ depend on social identity needs
	SJ on IDV*OS		Increased system justification amongst the disadvantaged when group norm for harmony is strong.	✓	✓		Non-committal (see comments column) .	--	--		SJT's strong dissonance-based explanation assumes that the combo of weak personal/group interests (individualism/ collectivism) and

											strong craving for harmony is required for the system motive to manifest amongst the disadvantaged, and this is only partially fulfilled in the mid-section of the IDV index. This is because in the mid-section of IDV, personal/group interests should be weak/modest, but so should the harmony norm also.
	SJ on UA*OS		Non-committal (see comments column)	--	--		Increased system justification amongst the disadvantaged when the need to resolve uncertainty is strong	✓	**X**		SIMSA does not offer a blanked proposition with regards to uncertainty avoidance. Its propositions are relevant when harmony is unambiguously tied to social identity needs.
	SJ on Asia*OS		Negative association between status and system justification in Asia (but not the rest of the world)	✓	✓		Negative association between status and system justification in rest of world (but not Asia)	**X**	**X**		
Study 2 (Model 1)	SJ on OS		Non-committal (see comments column)	--	--		Negative association	✓	✓		SIMSA predicts a moderation: Associations between SES & SJ depend on social identity needs
	SJ on Harmony*OS* NatiD		Positive association between national ingroup identification and system justification amongst the disadvantaged when group norm for harmony is strong	✓	✓		Negative association between national ingroup identification and system justification amongst the disadvantaged when need for harmony is strong	**X**	**X**		SJT strong dissonance-based prediction is null here because the proposed negative association between national ingroup identification and system justification amongst the disadvantaged was absent.
Proportion of predictions supported by the evidence			**6** out of 6 predictions = 100%				**3** out of 10 predictions = 33.33%				

Note. SJ – system justification; IDV = collectivism-individualism; OS = objective status; UA = uncertainty avoidance; NatiD = national ingroup identification. ✓ = prediction is supported; **X** = prediction is not supported.

Furthermore, although proponents of SJT have recently downplayed the "strong" dissonance-based system justification explanation (see Jost, 2019, p. 282), we sought a test that provided the most optimal conditions for it to emerge via not only *societal* indicators of the harmony norm, but also the extent to which citizens *personally* subscribe to this norm, in light of Buchel et al.'s (2021) recent defense of this thesis (even if some readers might find the defense

unconvincing). The fact that a system-motive driven system-justification did not emerge in the current investigation, even when the harmony norm should have maximized the likelihood for it to prevail under conditions of weak national group identification, creates further doubt about the existence of an autonomous system-level motive that is unconnected to self/group interests (Owuamalam & Spears, 2020; see also Owuamalam et al. 2016). Indeed, we show, for the first time, that the specific contents of a superordinate identity (e.g., in terms of its group norms) and investment in that identity offer a nuanced account of system-justifying attitudes amongst (objectively) disadvantaged Asians that accommodates the fact that specific group norms can sometimes reverse the positive association often reported between social status and system justification.

Importantly, the novelty of the current contribution to the understanding of system justification processes in Asia does not stop with the disadvantaged – the heart of the debate between SIMSA (Owuamalam et al., 2019a, 2019b) and SJT (Jost, 2019; Jost et al., 2019) researchers. Indeed, conditions of strong harmony mentality that should ordinarily enlist strong system-justifying tendencies amongst the advantaged—since stability of the system helps to sustain their privileged position—apparently weakened their resolve to do so. That is, we show that group norms can sometimes tilt the interest calculations of rich/highly-educated Asians in favor of *relational* motives, *so long as* they are strongly invested in their superordinate group identity. Put differently, while adherence to the Asian group norm of harmony can reduce the need for the disadvantaged to rebel against the system (or to "rage against the machine"), it could also encourage their advantaged counterparts to be more mindful of disrupting social relationships within their inclusive national ingroup perhaps because social harmony helps to

sustain their material privilege. These conclusions are entirely speculative at present, and direct empirical tests are warranted in the future as a result.

We also note the consistency between our findings and other Asian-based studies on system justification that report a negative association between objective group status and system justification (e.g. Li et al., 2020). In particular, the finding that upholding group traditions/norms (a conservative principle) explains the system-justifying attitudes of objectively disadvantaged Asians resonates with Li et al. (2020) who similarly invoked an orientation towards conservative thinking to explain the negative association between objective status and system justification in China. Hence, our data complements and extends the existing scholarship by unpacking the group-interested basis for system-justifying attitudes amongst objectively disadvantaged Asians. We accept that repressive regimes in some Asian nations may play a role in the disadvantaged's system-justifying attitudes (see also related findings in Study 1 concerning the role of societal freedoms). Nonetheless, the current findings suggest that this "repression" explanation might not be the only answer. As Foucault (1977; 1981) noted in his critique of "false consciousness" in which the disadvantaged are passive dupes of ideology, maintaining this status quo and securing support for the system is much more effective when the disadvantaged are ostensibly actively positioned and positively engaged in this process as a group ("interpellated" in the language of Althusser, 1984; See Spears, 1997), in this case via a positive (in)group norm of harmony. Here, we demonstrate that disadvantaged Asians who are steadfast in their national commitments might trust systems of governance in their country, especially if adherence to normative prescriptions of harmony in their culture hardens their resilience against unfavorable socio-economic realities. In short, system justification is enacted in the service of the superordinate ingroup (the nation) and its associated norms rather than the system per se and its associated system motive.

Limitations and Recommendation for Future Research

We have argued and provided preliminary evidence for the idea that impression management motives—i.e., to avoid having to come across as flaunting one's support for convenient realities—might depress (though not completely wipe out) system support amongst privileged Asians. However, it is possible to counter this proposition by arguing, for example, that the quote that was used to support the foregoing idea (see Figure 1) is:

> problematic because it uses an anecdote from social media that is non-representative of the wider population (e.g., the statement was liked by 3000+ people out of 30,000,000+ people in Asia). And, in fact, that a plausible anecdotal equivalent could also be to argue that wealthy Asians (e.g., in India) might flaunt their wealth in opulent weddings as a means of increasing their status within the local community.

It is important to reiterate that our argument is not that privileged Asians will *always* avoid the temptation of flaunting their status. In situations where flaunting of wealth is consensually accepted by a society (e.g., during weddings), it makes sense that the wealthy may be unconstrained by the normative acceptance of such behavior to do so: After all, even the poor sometimes go to great lengths to meet societal expectations of flaunting at weddings (e.g., by incurring personal debts). On the other hand, bragging about a system that confers privilege to some citizens at the expense of others (e.g., male privilege; aristocracy, elite-serving governments), may be a context in which normative societal disapproval could pressure the privileged to tame their excesses (or the appearance of it). In the current research, the system in question is one in which flaunting may be ill-advised, whereas the system in the "wedding" counterargument is one in which flaunting is normatively celebrated in most societies. In short, even if over three thousand data points from the example depicted in Figure 1 can be considered

"anecdotal" and, therefore, unrepresentative of Asia, the nationally representative evidence across Studies 1 and 2 underscores the "possibility" that concerns over the flaunting of privilege may cause advantaged Asian to dim their support for the status-quo. However, we concede that direct evidence of a dimming effect potential of perceived flaunting on system justification amongst the advantaged is not as strong as it could have been in this correlational investigation. Future studies could therefore benefit from a more direct experimental test of this idea.

Concluding Remarks

A crucial question when it comes to system justification in Asia is *why* do members of disadvantaged groups support their societal institutions more than members of advantaged groups? One important difference between SIMSA's account and SJT's strong, dissonance-based explanation for this paradox is that the former assumes that such system support serves the social identity needs of the disadvantaged, while the latter assumes that a system-level motive that is independent of group motives helps to understand this puzzling attitude. Consistent with SIMSA, our correlational evidence shows that the objectively disadvantaged (including Asians) may support and/or place their trust in their nations' systems of governance due to a strong psychological investment in their national ingroup (Study 2), particularly when individuals or societies in which they live strongly endorse a cultural group norm prescribing harmony (Studies 1-2). This account is non-trivial because it explains between 34-60% of the variance in system justification across the two studies reported here, going by pseudo R^2 estimates. The alternative strong dissonance-based SJT explanation that the disadvantaged show system justification due to a system-level motive that operates independently of group interests did not receive strong support in our study, because system justification was not especially (and consistently) visible in the *diagnostic* condition of weak group identification theorized to activate this motive. In short,

the disadvantaged in Asia (and elsewhere in the world) do not seem motivated by some irrational need to maintain the status-quo (Jost, 2019, p. 281): they support their systems of governance because it ostensibly serves their social identity needs. We hope that this additional insight into the system justification processes of Asians, especially the identity basis for this tendency, will help to guide future research on the topic.

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Conflict of Interest

The authors have no conflict of interest to declare.

Publication Ethics

The research reported in this paper has been conducted ethically, following the ethical standards that have been set by the British Psychological Society (as well as local institutional oversight committees). Results have been reported honestly, and the submitted work is original and authorship reflects individuals' contributions to the paper.

Data Archiving and Sharing

Our report concerns a secondary analysis of an existing data archive that is already publically available (i.e. the World Values Surveys, and AsiaBarometer). Links to these datasets are included in the methods section of each study reported in the paper, and the analytical scripts that we used to generate results in Studies 1 and 2 can be found on a dedicated page via OSF (Open Science Framework: https://tinyurl.com/kk9dvnh9).

Data Availability Statement

We do not own a copyright to the WVS or AsiaBarometer survey. But both datasets are publicly available and, interested researchers are advised to get in touch with the survey collectors directly.

Appendix A: Questions and Answers

Has SJT researchers not ditched the dissonance-based explanation in the last 15 years and, now accepts that group identities and interests can cause system justification?

Firstly, it is difficult to argue that the dissonance-based explanation for enhanced system justification amongst the disadvantaged is no longer relevant to the SJT framework, when the key proponent of the theory devoted nearly two article pages to discuss it in a recent clarification (see Jost, 2017, pg. 74-75), with the only caveat being that researchers should:

a) not confuse the "strong, dissonance-based hypothesis with system justification theory itself" and that…
b) self/group interest should also be expected to *weaken* the system justification effect amongst the disadvantaged, so that the advantaged are often more enthusiastic supporters of the system rather than the disadvantaged.

Hence, Jost (2017) is arguing that the dissonance-based explanation for system justification amongst the disadvantaged is still relevant, and only clarifying point 'a' 2 years later, in stating that the dissonance explanation is not "the engine" of SJT (Jost, 2019). The current analysis tests the dissonance-based proposition that the principal proponent of SJT deems relevant, even if not the engine of the theory, which other researchers have similarly tested recently (e.g. Brandt et al., 2020; Li et al., 2020; Owuamalam et al., 2021; Trump & White, 2018; Vargas-Salfate et al., 2018).

Secondly, it is true that SJT accommodates group identities/interests in its explanation of the system justification effect. However, the theory is clear that group interests/identities are only expected to enhance system justification amongst people who are advantaged by the relevant system. It has maintained all along, even in more recent writings over the last 15 years, (e.g. see

Jost, 2017) that group identities/interests can be expected to *reduce* (not increase) system-justifying tendencies amongst the disadvantaged either at the superordinate level of categorization (see also Kay et al., 2009, p. 428) or at the level of the subgroup (e.g., Kray et al., 2017). The divergent expectations for the advantaged and the disadvantaged in relation to group identity/interest basis for system justification is central to SJT's strong, dissonance explanation, which the current analyses devote attention to.

Finally, it is possible to argue still, that SJT proposes a more general conflict of motives (i.e., between system and group/self-motives) to be responsible for system justification amongst the disadvantaged, *beyond* the motivation to reduce the psychological discomfort theorized to be the outcome of this conflict/dissonance (cf. Festinger 1957, pg.2-3). Although a test of non-dissonance reduction accounts of system justification amongst the disadvantaged is not the focus of the SJT analyses presented in this paper, a contrast between this alternate version of SJT and SIMSA is nonetheless easy to draw. That is, the non-dissonance-based version of SJT assumes a conflict between self/group motives vs. system motive for low-status groups, and that system justification is a likely outcome amongst the disadvantaged when the salience of the system motive is sufficiently strong to overpower self/group-based needs and tendencies (Jost, 2011). SIMSA, on the hand, assumes that self/group motives are *compatible* with people's positive attitudes towards systems in their societies, including those that may be materially or otherwise disadvantaging at present, so long as these positive system attitudes (or system justification) address other psychological/symbolic needs for them at the level of the sub- or superordinate group (including mental health/wellbeing – see Owuamalam et al., 2017) either presently, or at some point in the future. Future research could benefit from contrasting this alternative version

of SJT's non-dissonance-based thesis with the SIMSA perspective, if only to help with theory development/advancement.

Is collectivism-individualism related to superordinate (national) ingroup identification?

When we correlated the meta-analyzed index of Hofstede's collectivism-individualism measure that we retrieved from Taras et al. (2012) with national ingroup identification from Study 2, we found a strong negative association (r = -.68, p < .001). Recall that on the collectivism-individualism index, higher scores denote greater individualism while scores towards the bottom of this index denote collectivism. Hence, the negative association confirms that national ingroup identification is stronger in societies with a greater orientation towards collectivism. This evidence supports the assumption we make concerning the current use of this cultural factor to also proxy ingroup identification in Study 1.

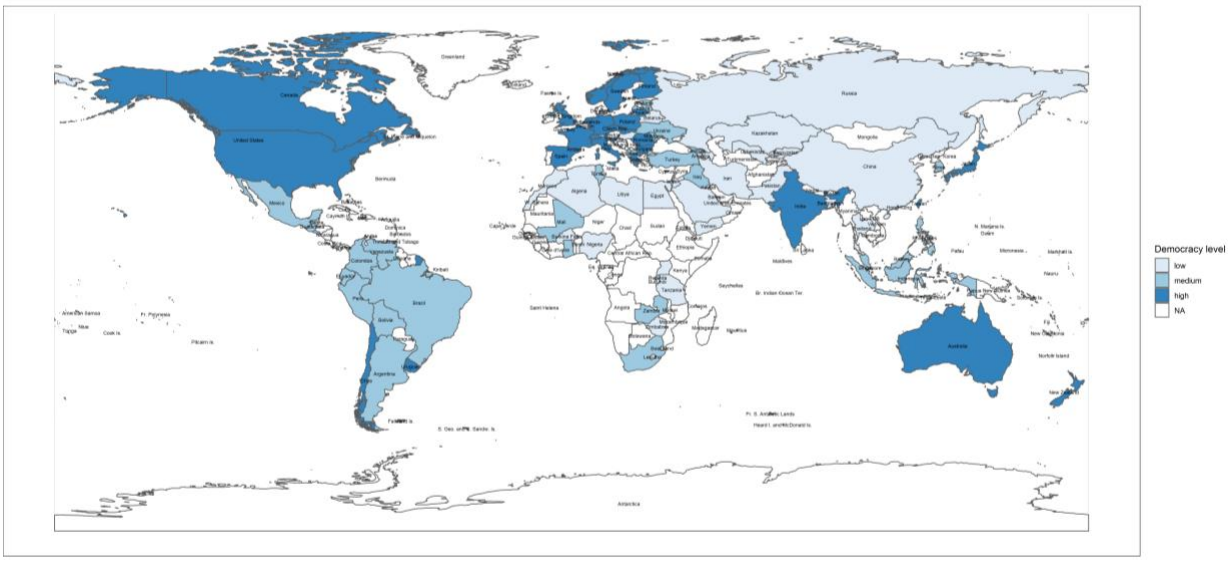
Could collectivism-individualism and uncertainty avoidance proxy group harmony?

An assumption in Study 1 was that Hofstede's collectivism- individualism and uncertainty avoidance can provide some insight into cultural orientations towards group harmony. Although Stamkou et al. (2019) has shown that "moral discipline" (a construct that is similar to the harmony norm) was negatively correlated with Hofstede's collectivism-individualism, r = -.52) and positively associated with uncertainty avoidance, r = .36), skeptics may wonder still whether we are able to show that these cultural proxies of harmony are, for example, related to the group harmony measure that we used in our own research. So, we correlated the meta-analyzed estimates of Hofstede's collectivism-individualism and uncertainty avoidance indices with the group harmony measure in Study 2. Results corroborated the pattern

of results presented in Stamkou et al. (2019), showing that collectivism-individualism was negatively associated with the group harmony measure in Study 2 (r = -.87, p < .001), whereas uncertainty avoidance was positively associated with group harmony (r = .20, p < .010). It is important to reiterate that on the collectivism-individualism index, higher scores indicate greater individualism while lower scores indicate more collectivism. Hence, the negative correlations involving this index imply that group harmony is stronger when a nation is located toward the collectivist end of the collectivism-individualism continuum.

Appendix B

Figure B1. Societal democracy heat map. *Note*. Less democratic societies have fainter shades of blue, and this lighter shade characterize much of Asia apart from India.



Appendix C: Sensitivity Analysis

We did not run a sensitivity analysis for Study 1 (given computational investments) because it seems obvious that we have sufficient power to detect even tiny associations from the 2-way interactions. Our sensitivity analysis was for Study 2 alone due to the much lower *N*-size relative to Study 1. Hence, we ran a series of simulations for both the national pride and nationalism models considering the highest order association (i.e., the three-way interaction) as the focus term. We wanted to establish, post-hoc, whether we had sufficient power given the parameters contained in our analyses, to detect a range of values, starting from a tiny association (-.02) to more modest ones (i.e., -.05). Hence, for both purist and realist models, we tested six simulations, setting the effect sizes of the three-way interaction either to -0.02, -0.03, -0.04, -0.05, and considering 500/200 runs each time for purist and realist model respectively. Number of simulations for the realist model was reduced to 200 because of computational challenges (it took approximately 20 hours to run 6 estimates for each model, and an increase to 500 will extend the computational time even further). Simulations were performed using the simr package in R software (Green & MacLeod, 2016). Results are shown in Table B1 (see also Figure B1). The detected effect sizes were sufficient to approach a statistical power near or greater than 90%.

Table B1.

Power Simulations for a Range of Hypothetical Effect sizes Concerning Some of the Key Associations Observed in Study 2.

	Purist (500 runs)			Realist (200 runs)		
Effect Size	Power	CI Low	CI High	Power	CI Low	CI High
-0.02	0.452	0.408	0.497	0.415	0.346	0.487
-0.03	0.756	0.716	0.793	0.735	0.668	0.795
-0.04	0.946	0.922	0.964	0.920	0.873	0.954
-0.05	0.992	0.980	0.998	0.990	0.964	0.999

Note. CIs are 95% confidence intervals

Figure B1. Power sensitivity simulations for the purist and realist models.