# Primed to Adjust:

## An Investigation of Chronic Collectivist Social Tuning


By
Satia A. Miller
Melissa H. Paris

J. L .S.
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# Primed to Adjust: An Investigation of Chronic Collectivist Social Tuning

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Satia A. Miller
Melissa H. Paris

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Approved:
Professor, Jeanine L. Skorinko, Project Advisor

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## Abstract

The present study investigates a possible factor leading to chronic social tuning in collectivist cultures. Participants were primed to either adjust to others or influence others, and were then asked to evaluate images that either represented no views, the perceived egalitarian views of the experimenter, or the views of other participants. Results suggest that participants tuned towards the egalitarian views of the experimenter and expressed significantly lower levels of implicit and explicit prejudice when primed to adjust to others.

# Primed to Adjust: An Investigation of Chronic Collectivist Social Tuning

What we consider socially acceptable really depends on what we see every day. In some cultures it is more acceptable for individuals to assert themselves and question authority, while in others it is more acceptable for individuals to consider group harmony and think in the interest of the group as a whole. Though how we interact with others is often influenced by our cultures, there are some behaviors that are common across cultures. Regardless of culture, individuals will align their attitudes with others if there is sufficient motivation, this alignment is referred to as social tuning. However, in some cultures social tuning occurs without motivation. The present study seeks to determine if one of the factors leading to unmotivated or chronic social tuning in collectivist cultures is a natural tendency to adjust to others.

## Culture

Past research has looked extensively at cultural differences. Specifically, research has explored how cultural differences impact attitudes and behavioral tendencies (Hofstede, 1984; see Heine, 2007 for a review). These tendencies, referred to as chronic dispositions, are often measured along dimensions, such as masculinity in which more masculine cultures have clearly defined, expected social roles for males and females, or more feminine cultures that have more overlapping social roles. The most commonly referred to dimension is that of individualism. Individualist cultures tend to emphasize the needs of the individual or those of an individual's immediate relationships, while more collectivist cultures tend to focus on the needs of those within the group or community (Hofstede, 2001). During a cross-cultural study conducted at IBM branches in several countries, the Costa Rican culture was determined to be highly collectivist (Hofstede, 2003). Thus the present study was conducted in Costa Rica with Costa Rican participants.

The extent to which a culture is individualist or collectivist not only influences what a person will focus on, but also what he or she will perceive. One study tracked the eye movements of participants as they viewed a photograph of a tiger in a jungle. The researchers observed that individualists spent more time looking at the focal point of the picture, the tiger, while collectivists spent more time looking at the background, or the overall context of the image (Chua, Boland, & Nisbett, 2005). The researchers hypothesize that this difference in eye movements parallels the focus that the respective cultures place on the individual or the context within which the individual exists. Similarly, when children from individualist cultures were asked to select the items that belonged together, out of a set consisting of a cow, a chicken, and grass, they most often paired the cow and the chicken because they were both animals. When children from collectivist cultures were asked to complete the same task they more often selected the cow and the grass, stating that cows eat grass. These collectivist children were more focused on the connection between the items than the rules that group them (Chiu, 1972).

Some research suggests that how we behave in a certain situation may not be entirely determined by culture, but can also be influenced by our present mindset. This theory has led to much research on how the accessibility of individualist or collectivist ideas can lead to changes in behavior (Oyserman & Lee, 2008). To observe changes in behavior depending on mindset, it is not necessary for the participant to be aware that individualist or collectivist ideas are being made more accessible. A series of studies in Hong Kong found that even the language a study is presented in can act as a mindset prime. This study found that whether participants completed the experiment in English or Chinese impacted the degree to which their responses were individualist or collectivist, respectively (Lee, Oyserman, & Bond, 2010). One limitation of past research is that while results suggest that priming individualist or collectivist ideas will change behavior, it is difficult to determine the specific aspect of individualism or collectivism that is resulting in the observed changes. The

current research instead primes participants to think about "adjusting to others" or "influencing others," mindsets that are related to collectivism and individualism, respectively. Doing so enables us to look at this aspect of collectivism and individualism specifically.

**Social Tuning**

Culture not only influences the way in which individuals perceive the world, but also how they interact with it. Much research investigates the ways in which individuals interact with others in different contexts. Specifically, one body of research is concerned with the idea of shared reality and one of the mechanisms by which individuals may achieve shared reality: social tuning. Shared reality theory suggests that individuals create a sense of connection to others on a level of internal beliefs or ideas (Hardin & Conley, 2001; Hardin & Higgins, 1996). Social tuning is a mechanism by which individuals achieve this similarity in internal beliefs. In certain situations individuals may align their attitudes with others, social tune, in order to foster a more positive interaction (Lun, Sinclair, Whitchurch & Glenn, 2007; Hardin & Conley, 2001; Hardin & Higgins, 1996; Sinclair, Huntsinger, Skorinko & Hardin, 2005a; Sinclair, Lowery, Hardin & Colangelo, 2005b). For example, after discovering that an interviewer is a member of a department softball team, a potential candidate might claim to enjoy playing softball when in actuality, they had never previously had a desire to play. Both individualist and collectivist cultures exhibit social tuning when an individual is presented with the appropriate motivation, such as a desire for knowledge, or the desire to get along with an interaction partner (Lun, et al., 2007; Sinclair, et al., 2005a). However, more recent research suggests that collectivists social tune chronically, without motivation (Skorinko & Lun, 2012). The present study seeks to determine why collectivists social tune chronically and if this social tuning can lead to the transference of egalitarian attitudes.

**Adjustment Theory**

One possible mechanism leading to chronic collectivist social tuning may be the preference and tendency to adjust to others. In one study, researchers surveyed students in both individualist and collectivist cultures about the extent of their adjustment in an aerobics class (Morling, 2000). They found that while individualists would change a step that they disliked or found difficult, collectivists would exert more effort in order to perform the difficult step well, which is suggestive of adjusting to the class. Collectivists also experienced more anxiety in response to cues of disapproval and were better at perceiving cues to adjust their behavior, such as the change from a smile to a neutral expression, than individualists (Ishii, Miyamoto, Mayama & Niedenthal, 2011). Further, collectivists were better able to recall situations in which they had adjusted to others, while individualists were better at recalling situations in which they had influenced others (Morling, Kitayama & Miyamoto, 2002). A recent study manipulated whether participants were primed to adjust to others or influence others and found that even how we describe others can be affected by our mindset (Miyamoto & Ji, 2011). In that study, participants primed to adjust to others were more likely to use verbs when describing others, which are malleable actions, than adjectives, which are more dispositional attributes. The present study seeks to determine if priming collectivists to adjust to others will amplify this natural tendency to adjust to others and help to explain chronic collectivist social tuning.

**The Present Study**

The present study seeks to determine whether the tendency to adjust to others is an underlying factor in the chronic social tuning of collectivists. Participants will be primed to think in ways that either encourage adjusting to others or influencing others, after which it will be determined if present mindset can lead to changes in both explicit and implicit attitudes. We predict a two-way interaction between the Mindset Prime and Perceived Views, such that participants that are primed with "adjust to others" will social tune towards the ostensible views of the experimenter,

but not to the views of other participants. We anticipate this behavior because social tuning is a mechanism by which individuals achieve increased shared reality and shared reality cannot be achieved between an individual and a group, but only between individuals. We do not anticipate social tuning when participants are primed to adjust to others and are not presented with views (control condition) because there is no attitude presented for participants to align their attitudes towards. Also, we do not predict that social tuning will occur when participants are primed to influence others because the tendency to "influence others" is a more individualist behavior and past research suggests that individualist will not tune in the absence of motivation.

## Method

### Participants

A total of 128 participants (49 males, 78 females, 1 unreported) were recruited from language schools and a local university in San José, Costa Rica (CR) to complete the present study. All participants were compensated the equivalent of $5.00 US for their time. Participants were able to complete the study in their preferred language, either English or Spanish (42 English, 86 Spanish). The median year in school for the participants was the second year of college. The data from 3 participants that reported being homosexuals was removed, as well as the data from 12 participants who indicated that they purposely altered their responses in the study due to their strong beliefs (prejudiced or egalitarian) towards homosexuals. Thus, the results are based on the data from 112 participants (40 males, 72 females). All participants provided informed consent.

### Design and Materials

Participants believed they were helping with a research project ostensibly investigating popular media in various countries. This study was 2 (Mindset Prime: Adjust to others or Influence others) x 3 (Perceived Views: Experimenter, Other Participants, or None) between-participants design.

**Mindset Primes.** Adapting from Chen and colleagues' (1996) mindset priming procedure, participants read two similarly themed writing tasks in which they responded with what they would do in given scenarios. Half of the participants read scenarios that were "adjust to others" themed, and the remaining half read scenarios that were "influence others" themed. The scenarios that were pretested for the experimental conditions began with base scenarios that were then framed in either the form of "adjust to others" prompt or an "influence others" prompt. For example, one of the base scenarios, Concert, concerned going to a concert after a long, hard day of work. In the "adjust to others" version of the Concert condition participants were asked to imagine a time in which they were exhausted after work and had to adjust their attitudes to accommodate a friend's wishes to go to a local concert, while participants in the "influence others" condition were prompted to imagine a time in which their friend was exhausted after a long day of work, and how they would influence their friend to want to go to a concert (Appendix A). The other three base scenarios concerned, having dinner with a friend and trying a new recipe (Dinner), going to see a movie in an unexpected genre (Movies), and going out with friends after a break-up (Break-up).

Each scenario was pretested prior to use in order to ensure that it primed the intended mindset. Pretesting was done through an online study in which participants were provided with ten scenarios: four "adjust to others," four "influence others," and two "neutral". Participants then rated the scenarios on the following criteria: requires adjusting to the attitudes of others, requires influencing the attitudes of others, clarity, plausibility, ease of identifying with the scenario, and the ease of response, on a 7-point Likert-type scale (1-*Not at all*, 7-*Very much so*). We conducted t-test analyses on the eight non-neutral scenarios to determine which ones significantly induced either the mindset "adjust to others" or "influence others."

The Concert and Movies scenarios were selected as the writing prompts for the "adjust to others" condition. Participants reported that the Movies scenario required more adjustment to others ($M$ = 6.33, $SD$ = 0.78), than influencing others ($M$ = 3.25, $SD$ = 1.82), $t$ (11) =5.54, $p <$ 0.005. Participants also reported that the Concert scenario required more adjustment to others ($M$ = 5.92, $SD$ = 0.95) than influencing others ($M$ = 4.00, $SD$ = 1.96), $t$ (12) = 3.51, $p$ = .004. The remaining two "adjust to others" scenarios showed no differences in adjustment towards others and influencing others, p*'s* > 0.07.

The Dinner and Movies scenarios were selected as the "influence others" writing prompts. Participants reported that the Dinner scenario required influencing others more ($M$ = 6.00, $SD$ = 0.7) than adjusting to others ($M$ =4.46, $SD$ = 2.03), $t$ (12) = -2.34, $p$= 0.04.. The Movies scenario marginally required influencing others more ($M$ = 5.83, $SD$ = 1.19) than adjusting to others ($M$ = 4.75, $SD$ = 1.82), $t$ (11) = -1.48, $p$ =0.17. While the differences were not significant for this scenario, the means were in the same direction as the Dinner scenario. In addition, this scenario was chosen because it was similar to one of the scenarios in the "adjust to others" condition. Participants reported that the Break-up scenario when framed to encourage influencing others, required significantly more adjusting to others (M = 6.13, SD = 0.83) than influencing others ($M$=4.33, $SD$=1.99), $t$(14)=2.95, $p$=0.01, thus this scenario was not chosen as the writing prompt. The remaining "influence others" scenario showed no differences in adjustment towards others and influencing others, $p$ > 0.4.

**Perceived Views.** Each participant was presented with four images ostensibly being considered for an upcoming marketing campaign. All images were pre-tested to ensure that they were neutral in affect and popularity. Participants were asked to evaluate the images on a 5-point Likert-Type scale (1-*Hated it*, 5-*Loved it*). Three of the images had content that was neutral in affect, and contained no persuasive messages or images; however, one image contained a persuasive

message. The persuasive image depicted a series of three couples, two homosexual and one heterosexual, and displayed the egalitarian message, "Tolerance is a Virtue" (Appendix B). While all participants viewed the same images, in some conditions participants were provided with the ostensible image ratings of the experimenter (the "experimenter's views" condition) or of other participants (the "other participant's views" condition). These ratings were provided in order to present the participants with egalitarian views that were ostensibly held by others (i.e., the experimenter or other participants) and were the attitudes that participants should tune towards. Ratings were shown using a five-star-scale, (1 Star-*Hated it*, 5 Stars-*Loved it*). The image ratings for each of the neutral images were in the mid-range (approximately three out of the five stars), while the rating for the egalitarian message was in the high-range (approximately five out of the five stars)—suggesting positive and egalitarian attitudes towards homosexuals. These ratings were consistent in both the "experimenter's views" and "other participants' views" conditions. In the third condition participants were not presented with image ratings (the "none" condition).

*Implicit Attitudes Measure.* Past research has shown that participants' implicit attitudes will tune towards those of their interaction partner (Sinclair, et al., 2005a, Skorinko & Lun, 2012). To measure the extent to which participants engaged in implicit social tuning, we measured the implicit associations participants held towards homosexuals using the Implicit Associations Test (IAT) (Greenwald, McGhee, & Schwartz, 1998; Greenwald, Nosek, & Banaji, 2003). The IAT requires participants to quickly categorize stimuli, words and pictures, as either good or bad, and heterosexual or homosexual. Stronger implicit associations are marked by faster reaction times when categorizing the stimuli. A slower reaction time would suggest that the individual does not automatically place the stimuli in the category that they are prompted to pair it with. Thus, higher positive numbers indicate more implicit prejudice towards homosexuals.

Explicit Attitude Measures**.** Past research suggests that participants' explicit attitudes will also tune towards those of their interaction partner (Sinclair, et al. 2005b). To measure the extent to which participants engaged in social tuning, we measured participants' explicit attitudes towards homosexuals. We used the Attitudes towards Gays and Lesbians scale (ATLG) (Herek, 1994), and its Spanish translation (Cárdenas & Barrientosas, 2008). For example, one question provided participants with the statement, "Male homosexuality is merely a different kind of lifestyle that should not be." Participants were then asked to rate each statement on a 7-point Likert-type scale (1-*Strongly disagree*, 7-*Strongly agree*).

Other Measures and Demographics. We measured the explicit religiosity of participants because Costa Rica has a 72% Catholic population (Bureau of Democracy-Human Rights and Labor, 2006) and the Catholic Church does not typically condone homosexual behaviors. To measure these explicit attitudes, we adapted the Francis Scale of Attitudes toward Christianity (Francis & Stubbs, 1987). Participants were provided with a statement, such as, "The church is very important to me," and were asked to rate each statement on a 7-point Likert-type scale (1-*Strongly disagree*, 7-*Strongly agree*). To measure explicit attitudes towards diversity, we used the Openness to Diversity and Challenge scale (Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996). Participants were provided with statements such as, "I enjoy talking with people who have values different from mine because it helps me to better understand myself and my values," and were then asked to rate each statement on a 7-point Likert-type scale (1-*Strongly disagree*, 7-*Strongly agree*). In order to determine how strongly participants related to being collectivist, explicit collectivist attitudes were measured using the Descriptive Norms scale (Fischer, Ferreira, Assmar, Redford, Harb, et al., 2009). Participants viewed action statements such as, "Sacrifice own self-interest for the benefit of one's group," and were then asked to indicate how frequently they performed the given action using a 7-point Likert-type scale (1-*Very rarely*, 7-*Very frequently*). Experimenter and participant demand were

also measured by asking participants to respond to questions such as "How much do you want to get along with the experimenter?" on a 7-point Likert-type scale (1-*Not at all*, 7-*Very much*). Demographic information was also collected.

**Procedure**

Participants were randomly assigned to each of the six experimental conditions using the Research Randomizer (Urbaniak & Plous, 2011). After giving informed consent, participants sat at a computer workstation to complete the tasks of the study. Participants were first given a writing task in which they responded to two writing prompts in which they either needed to think about a time in which they adjusted to others, or a time in which they needed to influence others. This served as our Mindset Prime manipulation. Following the writing task, participants viewed a series of images that were ostensibly being considered for a marketing campaign. Depending on the assigned condition participants were either presented with no image ratings (no views condition) or they were presented with the image ratings of either the experimenter or other participants. All participants were then asked to rate these images on a 5-point Likert-type scale (1- *Hated it*, 5-*Loved it*). This task served as our Perceived Views manipulation. After the image rating task, participants completed an implicit association test to measure their implicit attitudes towards homosexuals (IAT; Greenwald, et al., 1998; Greenwald, et al., 2003). After the implicit association test, participants completed a series of questionnaires to measure their explicit attitudes towards homosexuals on the Attitudes towards Lesbians and Gays scale (ATLG, Herek, 1994). In addition, we measured religiosity, openness to diversity, tendency to conform to others, and demand characteristics. Demographic information was then collected and the participants were debriefed, compensated, and thanked.

## Results

Based on our hypotheses we expected to observe social tuning in the conditions in which participants were presented with the views of the experimenter, and were primed to adjust to others.

To analyze the results we conducted an Analysis of Variance (ANOVA) with Mindset Prime (adjust to others, influence others) and Perceived Views Manipulation (no views, experimenter's views, other participant's views) as between-participants fixed factors on the implicit and explicit attitudes towards gays and lesbians.

*Implicit Association Test.* To analyze the results of the Sexual Orientation Implicit Association Test (SOIAT) we computed D-scores according to the method developed by Lane and colleagues (2007). Higher values indicate slower reaction times and increased prejudice towards homosexuals. We removed the D-scores of seven participants from this analysis as they were outliers more than two standard deviations away from the mean; thus, the analyses were conducted with data from 104 participants (37 males, 67 females). There were no observed main effects for Mindset Prime, $F$ (1,100) = 0.24, $p$ = 0.63, or Perceived Views, $F$ (1,100) = 1.47, $p$ = 0.23) on the results of the SOIAT.

However, there was a significant interaction between the Mindset Prime and the Perceived Views, $F$ (1,100) = 4.10, $p$ = 0.02. As hypothesized, a simple effects analysis showed that there was a significant difference between the responses of those participants in the "experimenter's views" condition, such that those participants that were primed with "adjust to others" ($M$ = 0.47, $SD$ = 0.43), demonstrated social tuning by expressing significantly less implicit prejudice than participants primed with "influence others" ($M$ = 0.68, $SD$ = 0.31), $F$ (1, 100) = 3.71, $p$ = 0.05. Also as predicted, there was no significant difference between the responses of those participants in the "other participants' views" condition and whether they were primed with "adjust to others," or "influence others," $p$ = 0.61. There was also an unexpected significant interaction in the "no views" condition. Participants that were not presented with views appeared to demonstrate less implicit prejudice when primed with "influence others" ($M$ = 0.36, $SD$ = 0.40) than participants that were primed with "adjust to others" ($M$ = 0.61, $SD$ = 0.25), $F$ (1, 100) = 4.30, $p$ = 0.04.

Explicit Measures. We hypothesized that those participants in the "adjust to others" condition would demonstrate less explicit prejudice when they were presented with the perceived egalitarian views of the experimenter. To measure explicit attitudes we administered the Attitudes towards Lesbians and Gays Scale (ATLG) in which lower scores indicate less explicit prejudice (Herek, 1984). As with the implicit measure, there were no observed main effects for Mindset Prime, $F$ (1,106) = 0.14, $p$ = 0.71, or Perceived Views, $F$ (1,106) = 0.20, $p$ = 0.82) on the responses to the ATLG.

However, as predicted, there was a significant interaction effect between Mindset Prime and Perceived Views, $F$ (1,106) = 3.03, $p$ = 0.05. Simple effects analysis revealed that there was a statistically significant difference between the responses of participants in the "experimenter's views" condition that had been primed with either "adjust to others" or "influence others." Those participants that were presented with the ostensible egalitarian views of the experimenter and were primed with "adjust to others" ($M$ = 2.59, $SD$ = 0.27) demonstrated social tuning by expressing significantly less prejudiced explicit attitudes towards gays and lesbians than those that were primed with "influence others" ($M$ = 3.63, $SD$ = 0.23), $F$ (1, 106) = 4.95, $p$ = 0.03. However, there was no significant difference between the responses of those participants in the "other participants' views" or the "no views" condition and whether they were primed with "adjust to others," or "influence others", $p_{other\ participants}$ = 0.49; $p_{no\ views}$ = 0.47.

Other Measures. Due to the difference in the number of males versus females that agreed to participate in this study we checked for the effect of participant gender on both the implicit and explicit measures. There was no effect of participant gender on the implicit IAT measure, $F$ (1,103) = 2.70, $p$ = 0.10, or the explicit ATLG measure, $F$ (1,110) < .001, $p$ = 1.00.

Median splits were conducted on the data collected in response to the Francis Scale of Attitudes towards Christianity (FSAC) measure, the Descriptive Norms Scale, the Openness to

Diversity scale, and the Demand Characteristics questions. This resulted in independent variables corresponding to each measure in which participants were either in the high or low level. Data from five participants was removed on the Francis Scale of Attitudes towards Christianity (FSAC) measure as they were outliers. Analyses of variance were conducted with each measure as an independent variable and the explicit ATLG and implicit IAT measures as between participants fixed factors. There were no main effects or interactions for responses to the FSAC, the Descriptive Norms scale, the Openness to Diversity scale, or Demand characteristics on the results of the implicit IAT measure or the explicit ATLG measure, $ps > 0.1$.

Overall, these results support our hypotheses by suggesting that being primed to adjust to others and viewing an egalitarian message endorsed by an interaction partner can lead to chronic social tuning by inducing more egalitarian implicit and explicit attitudes.

## Discussion

The present study sought to determine whether priming collectivists to adjust to others will result in unmotivated social tuning towards the experimenter's attitudes. Consistent with previous research on social tuning and adjustment in collectivist cultures, when collectivists were primed to adjust to others and presented with the ostensible egalitarian views of an interaction partner (i.e., the experimenter), they engaged in social tuning by aligning their views with the experimenters' views and demonstrated significantly less implicit and explicit prejudice (Skorinko & Lun, 2012; Ishii, et al., 2011). However, participants who viewed the ostensible ratings of other participants showed no significant differences in implicit or explicit prejudice between conditions.

Surprisingly, participants in the control condition that were not presented with views demonstrated significantly less implicit, but not explicit, prejudice when primed with "influence others" as opposed to "adjust to others." While participants in this condition did not see star ratings

indicating how acceptable the egalitarian message was to the experimenter or other participants, they did see the egalitarian message. Therefore, one possible explanation for this finding is that participants in this condition were more affected by the mindset prime, as those who were primed to influence others expressed less implicit prejudice than those who were primed to adjust to others—which should be important when trying to influence others to be less prejudiced. Another possible explanation for this unexpected finding could be that these participants engaged in anti-tuning of their implicit attitudes. Previous research on anti-tuning suggests that participants will tune their attitudes away from those of their interaction partner when they want to distance themselves from that individual (Higgins, 1992; Sinclair, et al., 2005a). For example, one study found that when a participant's desire to have a positive encounter with their interaction partner was low, they shifted their views regarding gender stereotypes away from the ostensible views of their interaction partner (Sinclair, et al., 2005a). This may be one reason for the lower levels of prejudice in this condition. However, the anti-tuning effect has not been explored in non-individualistic cultures. Therefore, future research should investigate whether collectivists exhibit chronic implicit anti-tuning when they are not presented with the attitudes of an interaction partner, and why this behavior occurs implicitly and not explicitly under the experimental conditions.

Previous research on social tuning has demonstrated that collectivists will social tune even without sufficient interpersonal motivation and the present research replicates that finding (i.e., affiliative motivation; Skorinko & Lun, 2012). Moreover, our findings provide evidence that the tendency within collectivist cultures to promote group harmony by adjusting to others may be one factor underlying the chronic social tuning of collectivists towards an interaction partner (Skorinko & Lun, 2012). However, this study focused on chronic social tuning, a phenomenon that has only been observed in collectivist cultures. Future research should determine if being primed to adjust to others has similar effects in social tuning within individualist cultures. In addition, while the present

research investigated adjustment to others as a possible cause for chronic collectivist social tuning, future research should consider additional factors that may also play a role, such as increased fear of disapproval, and increased satisfaction derived from meeting the expectations of others in collectivist cultures (Ishii, et al., 2011; Oishi & Diener, 2001).

One final avenue for future research to pursue is to test the tenets of the extent to which chronic social tuning will occur. For instance, the current research suggests that social tuning occurs when views from the immediate interaction partner are present; however, social tuning does not occur when views towards a larger social group are present. While this finding fits within the principles of social tuning, it is not entirely consistent with the collectivist mindset of promoting group harmony. More specifically, the tendency to adjust to others in collectivist cultures could also encourage tuning when the viewpoints of others are present. One possible explanation for the current findings is the manner in which the views were presented. Participants learned the views of other participants; however, there was no social need to adjust towards these views as there was no indication that the participant would interact with anyone from this group nor was there any indication of how the experimenter felt about these views. Therefore, future research should examine whether social tuning may occur towards a larger social group if an immediate interaction with a group member is expected.

In a similar vein, future research may consider whether the perceived views of the interaction partner are held by a majority of the population. Attitudes towards particular groups can change over time, and at times can be held by a majority or minority of a population. The present study indirectly examined social tuning when the experimenter held a minority view that was egalitarian towards the LGBTQ community. Under these circumstances we still observed social tuning towards a more egalitarian view. However, future research should test this directly by

manipulating whether the interaction partner holds known majority or minority views, and the possibility that individuals may also chronically tune towards a more prejudicial view.

In conclusion, individuals, regardless of their culture, have different perspectives, beliefs, and attitudes towards the many aspects of the world around us. How we express these attitudes, and how we behave when encountering the attitudes of others can vary by culture, especially between those cultures that fall at the more extreme ends of the individualism dimension. The present research adds to previous research regarding chronic social tuning in collectivists by demonstrating that a natural tendency to adjust to others may lead to the transmission of attitudes in collectivists. This suggests a possible mechanism for encouraging egalitarian attitudes in collectivist societies. If egalitarian attitudes are made more apparent and are actively endorsed by individuals, the automatic transmission of these attitudes may lead to less prejudice. Practically, the ability to induce unmotivated social tuning towards varying attitudes may enable us to develop more effective negotiation techniques, resulting in more pleasant interactions and favorable outcomes. Further, chronic social tuning could lead to less tension and bullying in classroom scenarios, as well as increased harmony as students learn to accommodate and accept the differences of others without feeling as though they have compromised their own values. These applications may in turn lead to a less antagonistic, more peaceful world.

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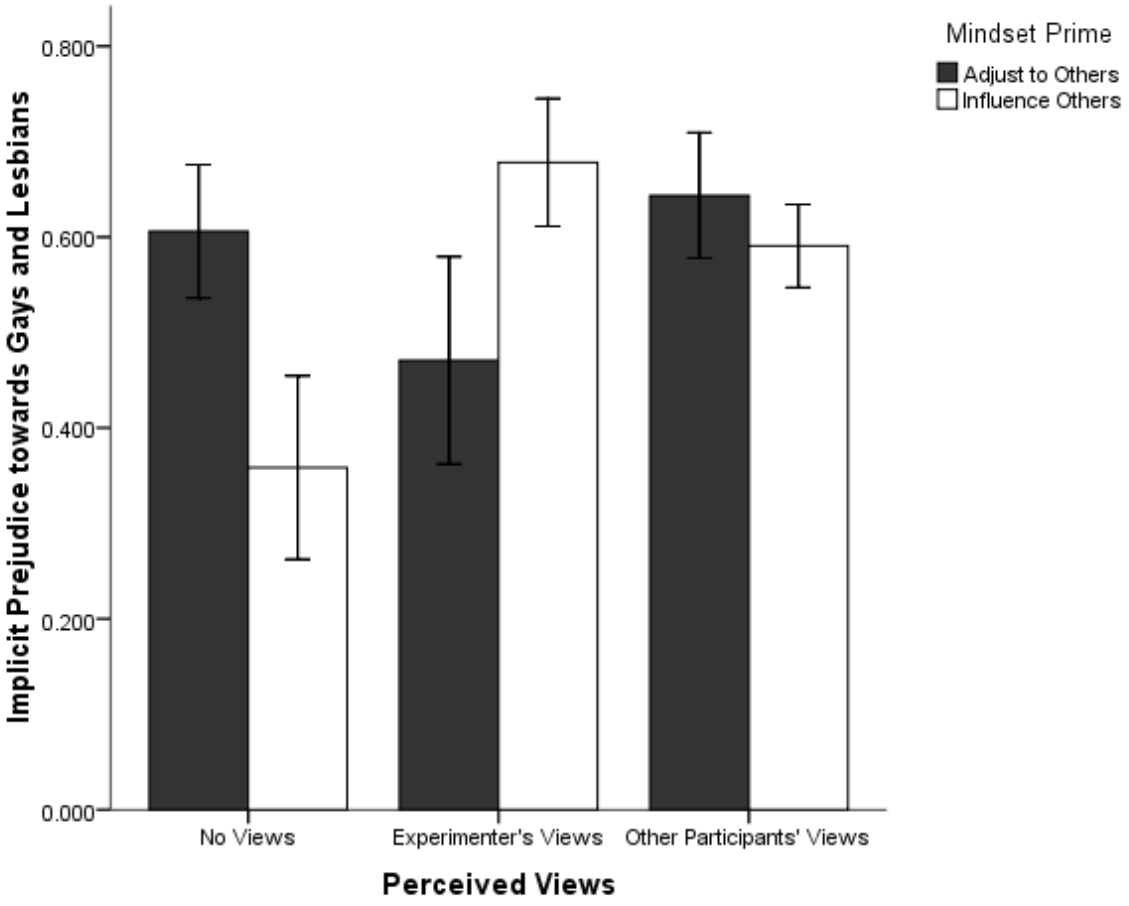
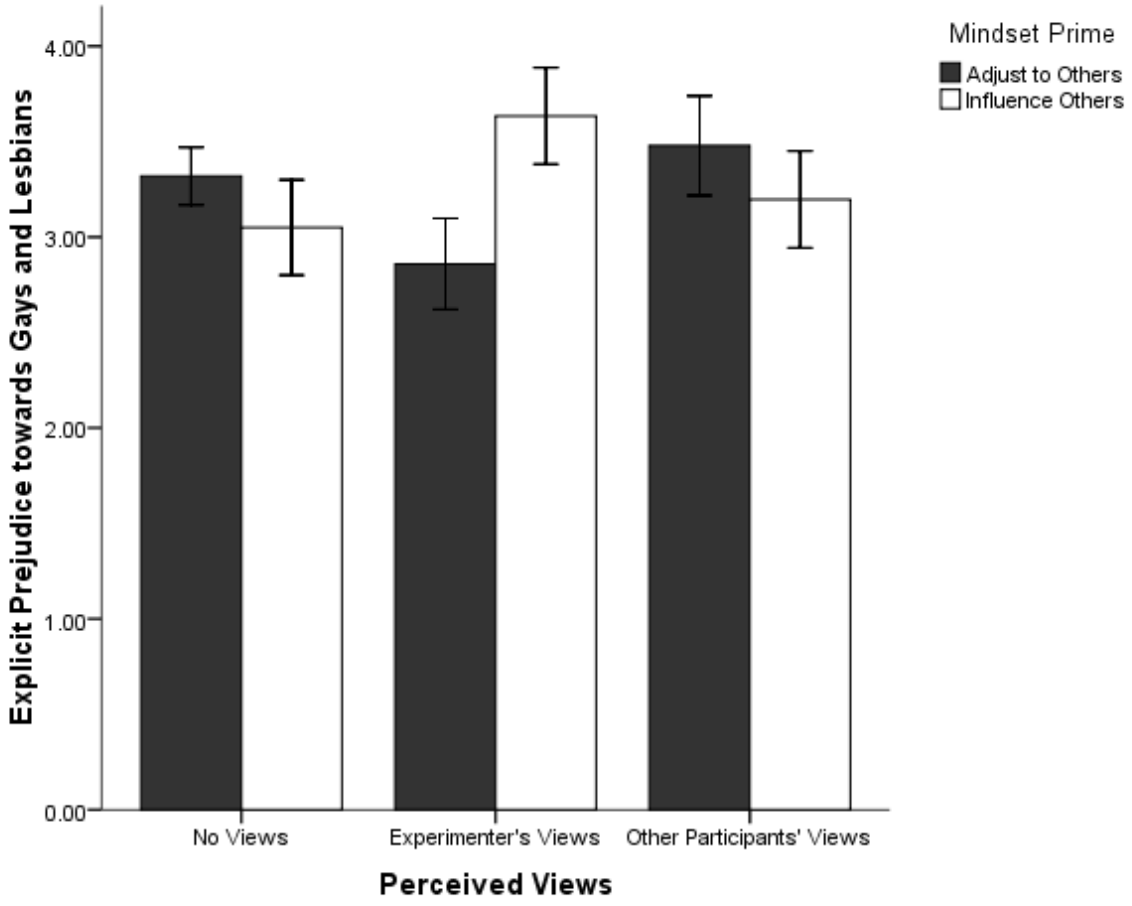
## Figure Captions

Figure 1. Implicit prejudice towards Gays and Lesbians as a function of mindset prime and perceived views.

Figure 2. Explicit prejudice towards Gays and Lesbians as a function of mindset prime and perceived views.


Mindset Prime
Adjust to Others
Influence Others
Implicit Prejudice towards Gays and Lesbians
0.800
0.600
0.400
0.200
0.000
No Views
Experimenter's Views
Other Participants' Views
Perceived Views


Mindset Prime
Adjust to Others
Influence Others
Explicit Prejudice towards Gays and Lesbians
4.00
3.00
2.00
1.00
0.00
No Views
Experimenter's Views
Other Participants' Views
Perceived Views

# Appendix A

Sample Writing Task

1). Please imagine that you have invited your friend over for dinner. You spent all afternoon preparing a delicious meal from a new recipe book. However, when your friend arrives you notice that he/she is barely touching their food, and seems a little bit uneasy. How might you influence your friend so that they are more comfortable trying these new foods?

*Please respond to the prompt in the textbox below.*

**Appendix B**

Sample Image Rating Task


The **experimenter's** rating for this image:
(1 Star=Hated it; 5 Stars=Loved it)

2). How much do you like this image? (Use the slider to indicate your response)

Hated It Loved it