

The Effects of Affiliative Motivation and Perspective Taking on Social Tuning

An Interactive Qualifying Project Report:
Submitted to the Faculty
of the
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the
Degree of Bachelor of Science
By

Aaron Root

Date:

Approved:

Professor Jeanine Skorinko, Advisor

Abstract

This study examined the effects of affiliative motivation, or the desire to get along with someone, and perspective taking, or the ability to adopt another person's views, on social tuning. Participants interacted with either a nice or rude experimenter (affiliative motivation manipulation) who was always wearing a pro-homosexuality tshirt. All participants then completed a sentence unscrambling task, and half unscrambled neutral sentences and half unscrambled perspective-taking oriented sentences. Their implicit and explicit attitudes were measured to determine the extent to which they tuned toward the experimenter. Results show that participants who had affiliative motivation were more likely to tune towards the experimenter than those who had low affiliative motivation. Perspective-taking did not have a significant influence on tuning. In conclusion, this study supports shared reality theory and the importance of affiliative motivation in the tuning process.

Executive Summary

To what extent are our opinions influenced by external factors? Is it possible that our opinions are the result of the people around us? Research suggests that, at times, individuals will social tune, or align their beliefs with those of their interaction partner (Sinclair, Hardin, Lowery & Colangelo, 2005). According to shared reality theory (Hardin & Higgins, 1996), social tuning occurs in order to create and maintain a mutual understanding and a consensus on reality between interaction partners. This shared reality should consequently foster and improve interpersonal relationships. In order to social tune, shared reality theory posits that people are more likely to tune more towards those that they desire to form relationships with—called affiliative motivation. Shared reality theory also claims that the ability to take another persons perspective is important to achieving shared reality and maybe an important factor in social tuning. While past research has investigated how affiliative motivation influences tuning (Sinclair, Hardin, Lowery & Colangelo, 2005), and shared reality claims perspective taking is important to affiliative motivation and the tuning process (Hardin & Higgins, 1996), no empirical research has investigated how perspective taking influences tuning. Thus, this experiment sets out to investigate whether affiliative motivation and perspective taking influence social tuning.

To do so, 107 participants came into the lab and were always greeted by an experimenter that wore a t-shirt with an egalitarian message about homosexuality (“Gay? Fine by me.”). The t-shirt signaled the perceived views of the experimenter (e.g., egalitarian attitudes). When greeted by the experimenter, half the participants were treated very nicely and offered candy (high affiliative motivation condition); whereas, the other half of the participants were treated rudely and clearly not offered candy (low affiliative motivation condition). After the greeting

and being told the cover story of the experiment, participants completed a sentence unscrambling task meant to measure their cognitive skills. In actuality, half the participants completed an unscrambling task that had 20 sentences about perspective taking (e.g., “I see her point”), and the remaining half of the participants unscrambled 20 neutral sentences (e.g., “I like eating apples”). To measure the extent to which participants tuned toward the perceived egalitarian views held by the experimenter towards homosexuals, participants completed an Implicit Associations Test (Greenwald, McGhee & Schwartz, 1998) that measured their implicit attitudes towards homosexuals. They also completed the Attitudes towards Gays and Lesbians Scale (ATGL; Herek, 1998) that measured their explicit attitudes towards homosexuals. In addition, the extent to which participants felt affiliative motivation towards the experimenter and felt a desire and ability to perspective take with the experimenter was measured.

Based on past research (Sinclair, Hardin, Lowery & Colangelo, 2005), it was predicted that participants with high affiliative motivation (those treated nicely and offered candy) would be more likely to tune and have more egalitarian attitudes towards homosexuals than those who had low affiliative motivation (those treated rudely and not offered candy). Also, shared reality theory (Hardin & Higgins, 1996) claims that perspective taking is an important component in creating a shared reality. Therefore, people who are primed to perspective take should be more likely to social tune. If these two factors are combined together, then there should be even more social tuning than either of the two independently.

Looking at the effect of affiliative motivation and perspective taking on social tuning using an analysis of variance, we found that affiliative motivation significantly influenced the extent to which participants tuned. Those with high affiliative motivation (treated nicely) were significantly more likely to report more egalitarian attitudes towards homosexuals on the

Attitudes towards Gays and Lesbian Scale than those with low affiliative motivation (treated rudely). However, this effect was not replicated with implicit attitudes. Unlike affiliative motivation, perspective taking did not have a significant influence on social tuning of either explicit or implicit attitudes. In addition, there was no significant interaction between affiliative motivation and perspective taking on social tuning. These results imply that social tuning occurs more towards people we wish to form relationships with.

Since shared reality theory posits that perspective taking is an important underlying component during affiliative motivation and the tuning process (Hardin & Higgins, 1996), we conducted an exploratory analysis to investigate if affiliative motivation influenced the extent to which participants reported perspective taking. The results from this 2 (Affiliative Motivation: High vs. Low) x 2 (Perspective taking: Perspective taking manipulation vs. No perspective taking manipulation) ANOVA on self-reported perspective taking show that those who had high affiliative motivation (those treated nicely) were more likely to report perspective taking with the experimenter than the those who had low affiliative motivation (those treated rudely). The perspective-taking manipulation had no significant influence on self-reported perspective taking, and there was no interaction between affiliative motivation and perspective taking on self-reported perspective taking. Thus, affiliative motivation had a more significant effect on the amount of perspective taking participants reported than the perspective taking condition.

In conclusion, this study provides evidence that we use social tuning to attempt to form desirable relationships.. These results confirm past findings on the effect of affiliative motivation on social tuning (Sinclair, Hardin, Lowery & Colangelo, 2005) and the assertion in shared reality theory that affiliative motivation can lead to social tuning. While the results do not show that perspective taking is directly related to social tuning, they do show that affiliative

motivation and perspective taking are related, as suggested by shared reality theory (Hardin & Higgins, 1996). This result may be predicted by shared reality theory, since it contends that perspective taking is necessary for social tuning and affiliative motivation leads to increased tuning. Therefore, increased affiliative motivation would lead to increased tuning which would lead to increased perspective taking. However, this could also be a product of a failure of the perspective taking manipulation. Future research could repeat this experiment with a different perspective taking manipulation in order to be sure these results weren't caused by the particular manipulation that was used. While this experiment may not have linked perspective taking to social tuning, it does provide evidence in support of shared reality theory.

Contents

The Effects of Affiliative Motivation and Perspective Taking on Social Tuning.....	8
Method	12
Participants	12
Materials	13
Procedure.....	16
Results.....	18
Implicit Attitudes Towards Homosexuals	18
Explicit Attitudes towards Homosexuals	18
Discussion	20
Figures.....	24
References	28
Appendix A.....	29
Appendix B	37
Appendix C	42

The Effects of Affiliative Motivation and Perspective Taking on Social Tuning

To what extent are our opinions influenced by external factors? Is it possible that our opinions are the result of the people around us? Social tuning causes one person to align their views with another person that they are interacting with. This means that our beliefs can be influenced by the people around us, but how important is social tuning in shaping our beliefs? In order to understand this phenomenon it is important to understand the factors that influence it and how they interact with each other.

One theory that tries to understand how people interact with one another is shared reality theory. Shared reality theory (Hardin & Higgins, 1996) posits that people try to establish a consensus on what is real—or a mutual understanding when interacting with one another. This shared reality is the important glue that helps cement and maintain interpersonal relationships. More specifically, shared reality theory contends that we “tune” our beliefs towards people we desire to get along with in order to create and maintain consensus. In order to create this state, shared reality theory posits that two components are necessary: affiliative motivation and perspective-taking. Affiliative motivation is the desire to get along with someone, and shared reality theory argues that those who have a high affiliative motivation will be more likely to tune towards their interaction partner than those who have low affiliative motivation because those with high affiliative motivation have a more desire to get along with their interaction partner. In addition to affiliative motivation, shared reality theory posits that another important factor for achieving a mutual understanding is perspective taking, or the ability to see from another person’s point of view. According to shared reality theory, perspective taking is likely to occur

when people have affiliative motivation and is necessary for successful communication. In addition, perspective-taking helps increase shared knowledge.

Research conducted thus far on social tuning has focused on the different factors that influence tuning, and this research consistently shows that affiliative motivation is one of the key predictors of when social tuning will occur (Sinclair, Hardin, Lowery, & Colangelo, 2005; Sinclair, Huntsinger, Skorinko, & Hardin, 2005). In particular, the research shows that social tuning can help shape both people's self-evaluations and their attitudes towards others. For instance, in one study, participants were led to believe that they were going to interact with an ostensible partner. Before interacting with the "partner", participants were given reasons to get along with their partner (high affiliative motivation condition), or not given any reasons (low affiliative motivation). In addition, participants learned that their partner either held stereotypic or non-stereotypic views towards their own group (e.g., traditional views of women). The results show that those who had high affiliative motivation tuned towards their partner's attitude, and evaluated themselves in line with the partner's attitude (e.g., that they were more traditional women). Thus, those with high affiliative motivation adjusted their self-evaluations in line with their interaction partner's attitudes (Sinclair, Huntsinger, Skorinko, & Hardin, 2005).

Another study investigated the effects of affiliative motivation on attitudes towards others (Sinclair, Hardin, Lowery & Colangelo, 2005). In this study, participants interacted with either a polite or a rude experimenter (affiliative motivation manipulation) that wore a tshirt that expressed their beliefs (e.g., an anti-racism shirt that said "Eracism" was used). Manipulation checks revealed that the affiliative motivation manipulation worked as those that interacted with the polite experimenter experienced increased affiliative motivation while those that interacted with the rude experimenter experienced decreased affiliative motivation. Looking at the results,

the study found that participants who interacted with the polite experimenter (or had high affiliative motivation) were more likely to tune to the experimenter's ostensible attitudes than those that interacted with a rude experimenter (low affiliative motivation; Sinclair, Hardin, Lowery & Colangelo, 2005). In other words, participants with high affiliative motivation reported being less prejudiced than those who had low affiliative motivation. This shows that the desire to get along with someone can influence them to tune and can influence their attitudes towards others.

According to the shared reality perspective, another factor that may influence social tuning is perspective taking. Perspective taking is the ability to put yourself in another person's shoes and imagine how they see things. Several studies have investigated how perspective taking influences beliefs and behaviors. For instance, Galinsky, Wang and Ku (2008) performed several studies to determine the role of perspective taking on beliefs and behaviors—namely stereotypical behavior. In one experiment, one group of participants were instructed to take the perspective of a professor while another group was supposed to take the perspective of a cheerleader. Each group was then asked to perform an analytic task. Taking the perspective of the professor led to increased performance on the analytical task, while taking the perspective of the cheerleader led to decreased performance. These results are consistent with the stereotypes of professors being intelligent and cheerleaders being less intelligent. More importantly, these results show that taking the perspective of someone can consequently have a powerful influence on one's subsequent behavior, as perspective takers matched their own behavior with the behavior they thought the other person would exhibit. This phenomenon is similar to social tuning because research shows that those who tune typically match their behaviors and beliefs with their interaction partner, just as the perspective-takers in Galinsky, Wang, and Ku (2008).

Another study that investigated how perspective taking can shape our beliefs and behaviors examined the role of perspective taking in decreasing bias in social thought (Galinsky and Moskowitz, 2000). In one experiment, half the participants were asked to take the perspective of an elderly person in a photograph (and an African American man in another version of this study) and write an essay detailing a day in their life; whereas, the remaining half were instructed only to write an essay. The results showed that the perspective takers wrote less stereotypical essays than the non-perspective takers. While neither this experiment, nor the one investigating stereotypic behavior, show the impact of perspective taking on social tuning, they do show that perspective taking is a powerful force in shaping attitudes and behaviors. These studies show that by perspective taking, a person can incorporate another person's perceived beliefs and behaviors with their own.

In addition to influencing how people see themselves and others, perspective-taking can have benefits in group situations, especially during communication. The importance of perspective taking to communication was demonstrated by a study to determine the effect of perspective taking on group problem solving (Falk and Johnson 1977). In their experiment, ninety nursing students were divided into groups. Groups were then given instructions to either perspective take or express their own views. Perspective-taking groups had better solutions and were more cooperative than groups that did not perspective-take. These results suggest that perspective taking made it easier for the groups to form a consensus and possibly even a shared reality (or shared knowledge). These findings suggest that perspective-taking may be a key component in the formation of shared reality, and may also increase the likelihood of social tuning based on the shared knowledge.

While studies have investigated the effects of affiliative motivation on social tuning, none of these studies included the role of perspective taking. Falk and Johnson(1977) showed the perspective taking increases cooperation; however, the effects of perspective taking on social tuning specifically have not been fully investigated. Finally, the potential interactions between affiliative motivation and perspective taking, and their effect on social tuning, are not fully understood. We intend to investigate exactly how these two factors influence social tuning and how they interact with each other. In order to manipulate affiliative motivation and demonstrate the experimenters ostensible beliefs, we will use the same techniques as Sinclair, Hardin, Lowery and Colangelo (2005) and have the experimenter be nice or rude while wearing a t-shirt with an egalitarian message on it. Participants who interact with the rude experimenter should have less affiliative motivation than those who interact with a nice experimenter. Since past research has shown that perspective taking can have significant impact on beliefs and behaviors, we will examine its effects on social tuning as well. By manipulating affiliative motivation and perspective taking while observing how much a participant's views aligns with the perceived views of the experimenter, we will be able to better understand how these factors influence social tuning, both independently and together.

Method

Participants

A total of 107 students, comprising 44 females and 63 males, participated for partial course credit. All of the participants gave their informed consent. The data from 3 of the participants were excluded from the final analysis because two participants failed to notice the experimenter's shirt, and one believed the experimenter's shirt was part of the manipulation and not representative of the experimenter's views.

Design

This study was a 2 (Affiliative motivation: High or Low) x 2 (Perspective-taking: Perspective take or No Perspective Taking) between-participants design where the participant's level of affiliative motivation and readiness to perspective-take were manipulated in order to observe the resulting effect on the participant's social tuning.

The participants' level of affiliative motivation was manipulated by the experimenter's behavior. Reading from a script to ensure consistency, the experimenter was rude to those in the low affiliative motivation condition and amiable to those in the high level condition. The participants' readiness to perspective take was manipulated with a sentence-unscrambling task. Participants in the perspective-taking condition were given sentences that primed them to perspective take; whereas, the other participants were given neutral sentences (See Appendix A for a copy of this measure).

The extent to which social tuning occurred was measured with an implicit association test (IAT, Greenwald, McGhee & Schwartz, 1998) and explicit views were measured with the Attitudes towards Gays and Lesbians scale (ATLG; Herek, 1998).

Materials

Affiliative Motivation Manipulation. Throughout the course of the entire experiment, the researcher followed a script designed to influence the participant's level of affiliative motivation. The experimenter was amiable to those in the high-level condition, speaking enthusiastically about the experiment and offering the participant candy at the beginning of the study. In the low-level condition, the experimenter's dialog was much terser, and instead of offering candy, the researcher made a point of putting away a basket of it without offering any to

the participant and making a side comment that they did not know why some of the other experimenters insisted on giving candy out.

Perspective-taking Manipulation. The task consisted of 20 five-word sets that could each be unscrambled to form one and only one four-word sentence¹. For example, the participant would be given the set “wash, I, banana, clothes, the” and have to unscramble it to form “I wash the clothes.” Participants in the perspective-taking condition unscrambled sentences that primed them to perspective-take, like “I see her point.” Participants in the non-perspective-taking condition decoded neutral sentences, like “I like_eating apples.”

Perceived Views Manipulation In order to make the researcher’s ostensible views towards the target group clear, the researcher always wore a t-shirt that read “gay? fine by me.”

Implicit Attitudes Test A computerized test was used to measure implicit attitudes (IAT, Greenwald, McGhee & Schwartz, 1998). In this test, words with “good” and “bad” connotations and pictures suggesting either heterosexuality or homosexuality appear in the middle of the screen (all materials used in this IAT were taken from Nosek, et al., 2007). Participants must then categorize the pictures with the concept they represent as quickly as possible (e.g., “lucky” is a word belonging to the good category). A key on the left hand side of the computer (e.g., the “d” key) represents the concept that appears on the top left corner of the screen (e.g., “good”) while a key on the right hand side of the computer (e.g., the “k” key) represents the concept that appears in the top right corner of the screen (e.g., “bad”). In the IAT, participants first complete a trial round to familiarize themselves with the task. After the practice round, that real trials begin.

¹ Participants were given five words and told that only four of them would be needed to make the sentence.

Initially, participants categorize items by only one concept pair at a time (e.g, good/bad and heterosexual/homosexual). They then categorize items by both concept pairs simultaneously (e.g., the left hand key for good/heterosexual and the right hand key for evil/homosexual). This process is then repeated (and counterbalanced) with the sides of the concepts switched (e.g., the left hand key for bad/homosexual and the right hand key for good/heterosexual). The reaction time of the participant is recorded and used to compute how strongly they associate the "good" with homosexual or "bad" with homosexual (see Greenwald, Nosek, & Banaji, 2003 for the scoring algorithm of the IAT).

Explicit Attitudes Towards Homosexuals To measure explicit attitudes, we used the Attitudes towards Gays and Lesbians scale (ATLG; Herek, 1998). This survey measured the participant's explicit views towards homosexuals using 20 5-point Likert-type items. Each item consisted of a statement about homosexuality, such as "homosexual behavior between two men is just plain wrong," and asked the participant to mark their level of agreement (1 = "strongly disagree" and 5 = "strongly agree"; see Appendix B for this survey)

Final Questionnaire The final survey was comprised of manipulation checks, which checked to see if the participants' level of affiliative motivation and perspective taking matched with their assigned conditions, and collected demographic information like age, gender, and status as a student. The manipulation checks asked a question, such as "how motivated were you to get along with the experimenter?" and asked the participant to respond on a 7-point Likert-type scale where a score of one indicated "not at all" and a score of seven indicated "very much." (see Appendix C for a copy of this questionnaire). To assess the amount of affiliative motivation felt by the participant towards the experimenter, participants indicated on a 7-point Likert-type scale "How likeable does the experimenter seem" (1 = Not at All; 7 = Very Much). To assess

the extent to which participants thought they were perspective-taking with the experimenter, several questions assessing self-reported perspective taking ability were averaged together, as these questions reliably fit together (Cronbach's $\alpha = .81$). The questions were assessed on 7-point Likert-type scale (1 = Not at All ; 7 = Very Much) and consisted of the following five questions: a) How motivated are you to put yourself in the experimenter's shoes?, b) How important is it for you to try to think about yourself from the experimenter's standpoint?, c) How easily were you able to take the perspective of the experimenter?, d) How able were you to understand the experimenter's standpoint?, and e) How able were you to understand the experimenter's standpoint?

Procedure

Before the experiment started, the researcher donned the "gay? fine by me" t-shirt and assigned the participant into one of the four experimental conditions: high affiliative motivation (nice) and perspective-taking, high affiliative motivation and no perspective-taking, low affiliative motivation (rude) and perspective-taking and low affiliative motivation and no perspective-taking. Then, taking care to be either rude or nice in accordance with the assigned condition, the experimenter let the participants into the room and told the participants that the study investigated the connection between cognitive skills and social attitudes. After giving informed consent, the experimenter either offered the participants candy (nice/affiliative motivation condition), or took the candy basket away from the table (rude/low affiliative motivation condition). After the candy basket, the participants completed the sentence unscrambling task and were randomly assigned to complete the one with perspective-taking or

neutral sentences. The experimenter was blind to which sentence unscrambling task the participant completed, as all the tasks were randomly shuffled before the experiment began.

Then, to ensure that the participant noticed the experimenter's ostensible views that were expressed on "gay? fine by me" t-shirt, the experimenter had the participant complete an "eye exam". For the "eye exam", the experimenter always told the participants that their vision had to be checked prior to the computer task, and then looked for the eye chart, and "discovered" it was missing. After searching the lab for the missing eye chart, the experimenter hesitantly decided to make do with their t-shirt because it has writing on it. Then, the experimenter has the participant read the shirt from several different distances. After the "eye exam", participants are led to a computer and complete an Implicit Associations Test (IAT) that measured their implicit attitudes towards homosexuals (IAT, Greenwald, McGhee & Schwartz, 1998). Afterward, they were given the Attitudes towards Gays and Lesbians explicit attitudes survey (*ATLG; Herek, 1998*), which was composed of 20 5-point Likert-type items that assessed explicit attitudes towards homosexuals.

Finally, the participants were asked to complete a final questionnaire where they assessed the experimenter and provided demographic information (e.g., gender, age, year in school, sexual orientation). The participants were told that this survey was confidential and asked to put it in a sealed envelope upon completion. The questions about the experimenter were manipulation checks to see the extent to which they felt affiliative motivation and the ability to perspective-take. After sealing the final questionnaire in the envelope, the participants were then debriefed and allowed to leave.

Results

Implicit Attitudes Towards Homosexuals

The data were assessed for statistical significance at $\alpha = .05$ and were analyzed using a 2 X 2 ANOVA with Affiliative Motivation (high affiliative motivation, low affiliative motivation) and Perspective Taking (perspective taking, no perspective taking) as factors. Our predicted main effect for affiliative motivation on implicit attitudes was not statistically significant, $F(1,105) = .11, p = .75$. Thus, those who had affiliative motivation ($M = -.32 : SD = .46$) were not more likely to experience social tuning than those who did not ($M = -.29 : SD = .49$). Our predicted main effect for perspective taking on implicit attitudes was also not statistically significant, $F(1, 105) = .02, p = .90$. This means that those who were not primed to perspective take ($M = -.31, SD = .52$) were not more likely to show more egalitarian implicit attitude than those who were ($M = -.30, SD = .42$). Contrary to our predictions, the interaction between affiliative motivation and perspective taking was not statistically significant, $F(1,105) = .05, p = .83$.

Explicit Attitudes towards Homosexuals

While there were no significant findings implicitly, the results for affiliative motivation and perspective taking on participant's explicit attitudes were somewhat different. Our predicted main effect for affiliative motivation on explicit attitudes was significant $F(1,107) = 5.31, p = .02$. Participants in the high affiliative motivation condition ($M = 3.97, SD = .82$) reported more egalitarian explicit attitudes than those in the low affiliative motivation condition ($M = 4.28, SD = .53$). Thus, those with high affiliative motivation tuned towards the perceived egalitarian views of the experimenter more than those with low affiliative motivation. However, our predicted main effect for perspective taking on explicit attitudes was not statistically significant $F(1,107) = .38, p = .54$. Perspective takers ($M = 4.07, SD = .76$) did not have more egalitarian views than those who did not perspective take ($M = 4.16, SD = .67$). Also, the interaction between

affiliative motivation and perspective taking was not statistically significant, $F(1,107)=.09$, $p=.76$.

Manipulation Checks

Affiliative Motivation The manipulation of affiliative motivation was successful $F(1,110)=4.00$, $p=.048$. Participants in the high affiliative motivation condition were more likely to have higher affiliative motivation ($M=5.71$, $SD=1.27$) than those in the low condition ($M=5.22$, $SD=1.41$). Perspective taking did not have a significant effect on the amount of affiliative motivation participants reported $F(1,110)=.003$, $p=.96$, and there were no significant interactions between the affiliative motivation and perspective taking conditions $F(1,110)=.59$, $p=.45$.

Perspective taking. The perspective taking manipulation did not have a significant effect on the amount of perspective taking that participants reported $F(1,110)=.24$, $p=.63$. However, the affiliative motivation condition did, $F(1,110)=4.30$, $p=.04$. Participants under the high affiliative motivation condition were more likely to report perspective taking ($M=3.94$, $SD=1.22$) than those in the low affiliative motivation condition ($M=3.45$, $SD=1.16$). There were no significant interactions, $F(1,110)=2.02$, $p=.16$.

Exploratory Analysis: Perspective Taking and Affiliative Motivation

Since shared reality theory posits that those who have high affiliative motivation are more likely to perspective take than those with low affiliative motivation (Hardin & Conley, YEAR) and since affiliative motivation was the only factor that significantly predicted the extent to which participant's tuned, we wanted to see if those who had high affiliative motivation were more likely to report perspective-taking with the experimenter than those who had low

affiliative motivation. Using a 2 x 2 ANOVA with the self-reported perspective-taking index (see Appendix C) as the dependent measure and the affiliative motivation and perspective taking manipulations as the IV, there was a main effect for affiliative motivation $F(1,110)=5.95$, $p=.016$. Participants in the high affiliative motivation condition ($M=3.68$, $SD=1.02$) were more likely to perspective take than those in the low affiliative motivation condition ($M=3.20$, $SD=.97$). The main effect for perspective taking was not statistically significant $F(1,110)=.043$, $p=.837$. There were no significant interactions between perspective taking and affiliative motivation $F(1,110)=2.02$, $p=.16$.

Exploratory Analysis: Gender

For exploratory purposes, we investigated whether the participant's gender, affiliative motivation, and perspective taking influenced the extent to which social tuning occurred. Using a 2 x 2 x 2 ANOVA, we found a main effect for gender, $F(1,101)= 5.91$, $p =.02$. Males reported more egalitarian attitudes towards homosexuals ($M=4.01$, $SD=.74$) than females ($M=4.31$, $SD=.58$). However, gender did not have a significant effect on implicit attitudes $F(1,99)=1.45$, $p=.23$. Also, there were no significant interactions between gender, affiliative motivation and perspective taking on either explicit or implicit attitudes.

Discussion

The results support the idea presented by shared reality theory that people with high affiliative motivation will tune their beliefs towards an interaction partner. However, they do not clearly support the hypothesis that perspective taking plays a role in social tuning, and they do not indicate that there is an interaction between affiliative motivation and perspective taking. As

predicted, participants in the affiliative motivation condition displayed more egalitarian explicit attitudes towards homosexuals than those in the condition with no affiliative motivation. These findings confirm the results of past research (Sinclair, Hardin, Lowery, & Coangelo, 2005; Sinclair, Huntsinger, Skorinko, & Hardin, 2005) and are predicted by shared reality theory (Hardin & Higgins, 1996). However, affiliative motivation did not have a significant effect on implicit attitudes, as it did in past research (Sinclair, Hardin, Lowery, & Coangelo, 2005). While affiliative motivation influences explicit attitudes, perspective taking does not appear to have a significant effect on either explicit or implicit attitudes. Also, no significant interaction between affiliative motivation and perspective taking was found on either implicit or explicit attitudes.

While this study does not demonstrate that perspective taking has a significant effect on social tuning, it does provide further evidence that affiliative motivation is important to social tuning. In addition, the results also show that perspective-taking, even though not significant for social tuning, does play a role with affiliative motivation. People under the high affiliative motivation condition reported perspective taking more regardless of their perspective taking condition. In fact, whether the experimenter was nice or rude had a more significant effect on the amount of perspective taking participants reported than whether they were primed to perspective take.

Even though our findings did not show that perspective-taking was a key direct component to heightened social tuning, our findings do suggest that those with high affiliative motivation report perspective-taking more than those who have low affiliative motivation. In addition, shared reality theory posits that perspective-taking is a necessary component along with affiliative motivation for tuning and creating a mutual understanding. Thus, future research should continue to investigate the effect of perspective-taking and affiliative motivation on social

tuning. It is difficult to determine from our experiment whether the increased amount of perspective taking that participants reported is the result of increased affiliative motivation or a failure in our manipulation of perspective taking. Given this, an experiment could be repeated with a different manipulation of perspective taking in order to determine whether perspective-taking has a direct influence on social tuning, whether the lack of relationship in this experiment was due to the manipulation used, and to better understand the relationship between high affiliative motivation and self-reported perspective taking that was found in this study. For instance, perspective taking could be manipulated by either instructing the participant to take their interaction partner's perspective or by not instructing them to. This manipulation has been used successfully in other experiments (Falk & Johnson, 1977; Galinsky and Moskowitz, 2000).

One limitation of the study was that the t-shirt is a very subtle way to display the experimenter's beliefs. If the participants did not notice the shirt or believe the shirt was part of the experiment, then participants had not reason to believe the experimenter actually held these beliefs, and this could limit the extent to which people might have tuned. In addition, the use of the t-shirt to express the views of the experimenter may have inadvertently sent two different messages to the participants. First, wearing a t-shirt with an egalitarian message (e.g., "Gay? Fine by me") suggests that the wearer supports the views expressed on the shirt. However, by wearing the shirt, it may also imply that the wearer believes that other people do not feel the same way (e.g., the homosexuality is acceptable). This may especially be problematic when participants are perspective-taking as it is unclear whether the experimenter will want them to be egalitarian or expects them to be prejudiced. Thus, a future experiment could have the participant interact more with the experimenter. For instance, participants could complete a task with an experimenter pretending to be a participant. This would make the person believe that they were

interacting with another person who holds egalitarian views instead of an experimenter who is simply wearing a t-shirt as a manipulation. This would eliminate the problems caused by participants believing that the shirt is simply a manipulation because they have no reason to be suspect of the experimenter's beliefs. It would also remove any mixed messages caused by the tshirt.

While this experiment has not shown that perspective taking is important to social tuning, it has provided further evidence that affiliative motivation is. More specifically, there is a clear relationship between affiliative motivation and explicit attitudes as shown in this experiment and others (Sinclair, Hardin, Lowery & Colangelo, 2005). This experiment has also demonstrated that affiliative motivation may have an effect on perspective taking. These findings support the idea put forth by shared reality theory that people tune to reach a consensus and foster desirable relationships.

Figures

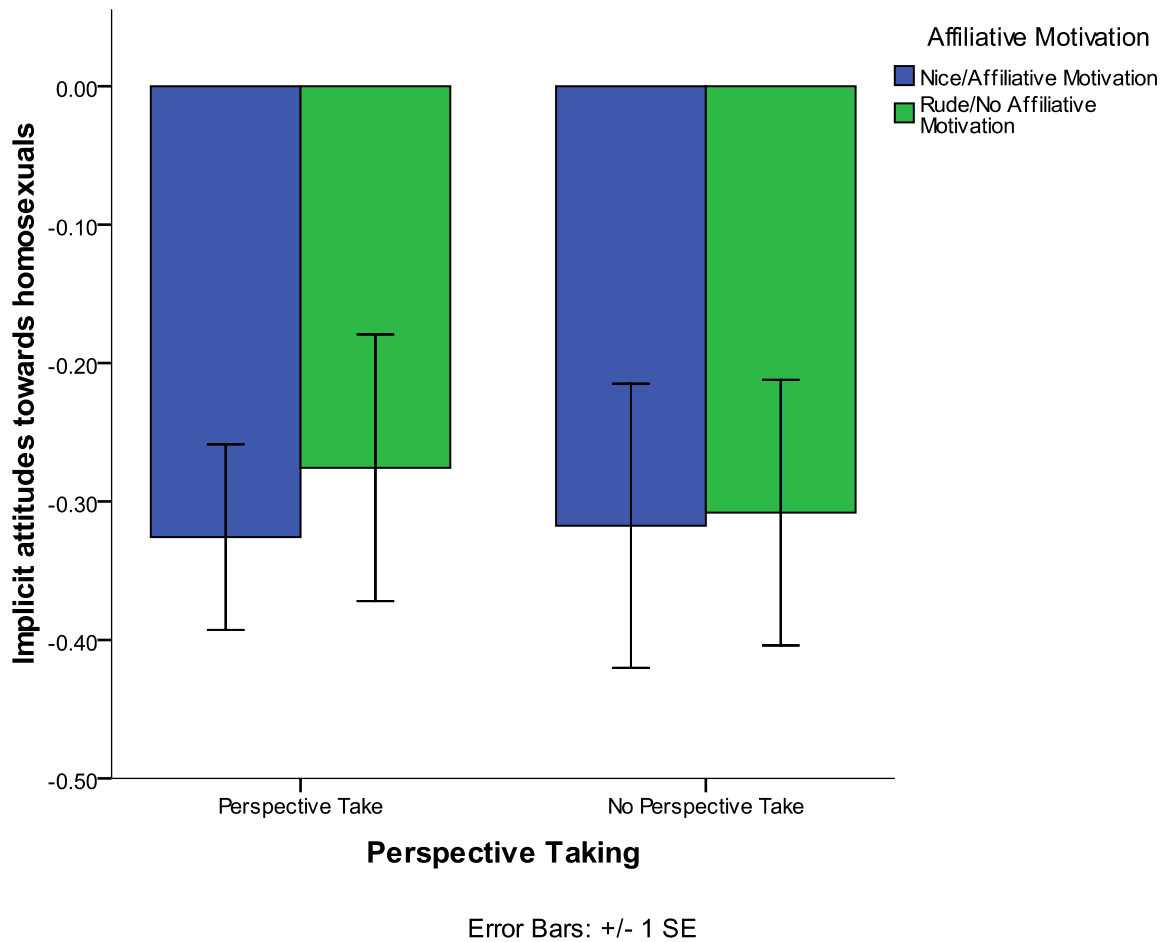


Figure 1. The effects of affiliative motivation and perspective taking on implicit attitudes

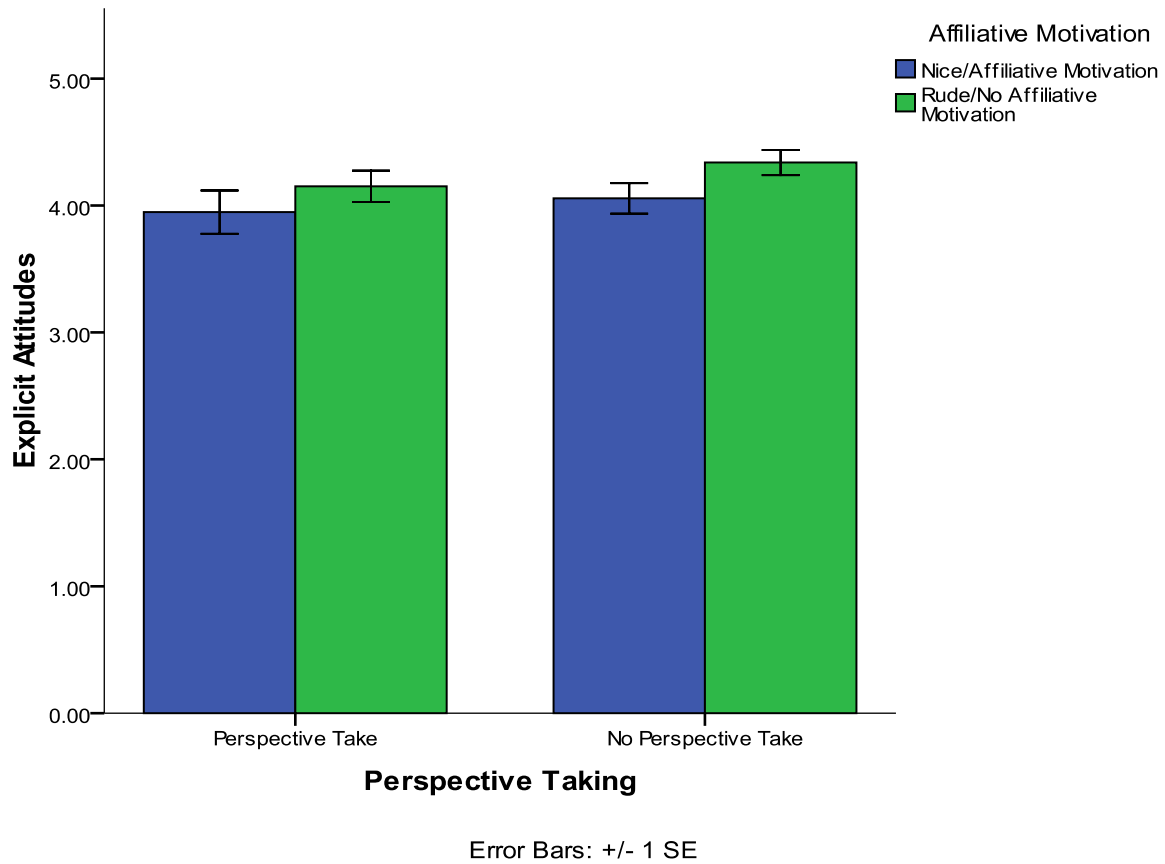


Figure 2. Effects of affiliative motivation and perspective taking on explicit attitudes.

Dependent Variable	N	M	SD	F	p
Implicit Attitudes Towards Homosexuals					
Affiliative Motivation				.11	.75
High Affiliative Motivation	57	-.32	.46		
Low Affiliative Motivation	52	-.29	.49		
Perspective Taking				.02	.90
Perspective Take	53	-.30	.42		
No Perspective Take	56	-.31	.52		
Affiliative Motivation * Perspective Taking				.05	.83
PT, AM	28	-.33	.35		
PT, No AM	25	-.28	.48		
No PT, AM	29	-.32	.55		
No PT, No AM	27	-.31	.5		
Explicit Attitude Towards Homosexuals					
Affiliative Motivation				3.41	.07
High Affiliative Motivation	58	4.00	.78		
Low Affiliative Motivation	53	4.25	.57		
Perspective Taking				1.26	.26
Perspective Take	53	4.04	.78		
No Perspective Take	58	4.19	.61		
Perspective Taking * Affiliative Motivation				.09	.77

PT, AM	28	3.95	.90
PT, No AM	25	4.15	.62
No PT, AM	30	4.06	.66
No PT, No AM	28	4.43	.53

Table 1: Means and Standard Deviations for explicit and implicit attitudes towards homosexuals

Dependent Variable	N	M	SD	F	p
Reported Perspective Taking					
Affiliative Motivation				5.95	.02
High Affiliative Motivation	59	3.68	1.02		
Low Affiliative Motivation	55	3.20	.97		
Perspective Taking				.04	.84
Perspective Take	53	3.43	.99		
No Perspective Take	61	3.47	1.05		
Affiliative Motivation * Perspective Taking				1.53	.22
PT, AM	28	3.54	.97		
PT, No AM	25	3.31	1.02		
No PT, AM	31	3.81	1.07		
No PT, No AM	30	3.12	.93		

Table 2: Effects of affiliative motivation and perspective taking on reported perspective taking

References

- Falk, D. R., & Johnson, D. W. (1977). The effects of perspective-taking and egocentrism on problem solving in heterogeneous and homogeneous groups. *Journal of Social Psychology* 102(1), 63-72.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology*, 78(4), 708-724.
- Galinsky, A. D., Wang, C. S., & Ku, G. (2008). Perspective-takers behave more stereotypically. *Journal of Personality and Social Psychology*, 95(2), 404-419.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and Using the Implicit Association Test: I. An Improved Scoring Algorithm. *Journal of Personality and Social Psychology*, 85, 197-216
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In R. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, (pp. 28–84). New York: Guilford Press.
- Herek, G. M. (1998). The Attitudes Toward Lesbians and Gay Men (ATLG) scale. In C.M.
- Davis, W.H. Yarber, R. Bauserman, G. Schreer, & S.L. Davis (Eds.), *Sexuality-related measures: A compendium*. Thousand Oaks, CA: Sage Publications.
- Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ranganath, K. A., Smith, C. T., Olson, K. R., Chugh, D., Greenwald, A. G., & Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18, 36-88.
- Sinclair, S., Huntsinger, J., Skorinko, J., & Hardin, C. D. (2005). Social tuning of the self: Consequences for the self-evaluations of stereotype targets. *Journal of Personality and Social Psychology*, 89(2), 160-175.

Sinclair, S., Lowery, B. S., Hardin, C. D., & Colangelo, A. (2005). Social tuning of automatic racial attitudes: The role of affiliative motivation. *Journal of Personality and Social Psychology*, 89(4), 583-592.

Appendix A

Sentence Unscrambling task (Perspective Taking)

For each set of words below, make a grammatical sentence and write it down in the space provided. For each set of words, there is **one** word that is not needed in the sentence.

For example:

Flew eagle the plane around

The eagle flew around.

1. empathize I her take with

2. feels pain Jane's Mary has

3. John her Heather relate to can

4. see himself can in shoes Alex's Adam hear

5. took his perspective She her

6. I her mindset considered situation

7. understand I mother her mindset

8. Jim's puts Derek himself shoes pants in

9. viewpoint mother sees father's strikes

10. understand I her lost position

11. understands Joe life outlook Rachel's

12. birds she with me empathizes

13. Christine's context Joey sees guess in the situation

14. I world blimp her through eyes see the

15. know she I how feels wakes

16. Lisa point of Mary's view story took

17. hard can Lauren's be perspective taking relate

18. he Sally sympathizes Harry with

19. I relate that can to today

20. perspective I understand Jeremy's picture

Sentence Unscrambling Task (No Perspective Taking)

For each set of words below, make a grammatical sentence and write it down in the space provided. For each set of words, there is **one** word that is not needed in the sentence.

For example:

Flew eagle the plane around

The eagle flew around.

1. ball throw toss silently the

2. he observes occasionally people watches

3. ate she it selfishly all

4. prepare the gift wrap neatly

5. the push wash frequently clothes

6. somewhat prepared I was refer

7. picked throw apples hardly the

8. they obedient him often meet

9. helpless it hides there over

10. send I mail it over

11. a smile what parrot great

12. ball the hoop toss normally

13. saw hammer the train he

14. maintain she to composure try

15. the machine wash frequently clothes

16. sky the seamless red is

17. a have June holiday wedding

18. salad I make green tasty

19. she line leads the children

20. have wing a butterfly I

Appendix B

Attitudes towards Gays and Lesbians scale (Herek, 1998)

1. Lesbian just can't fit into our society

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

2. A woman's homosexuality should *not* be a cause for job discrimination.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

3. Female homosexuality is detrimental to society because it breaks down the natural divisions between the sexes.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

4. State laws regulating private, consenting lesbian behavior should be loosened.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

5. Female homosexuality is a sin.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

6. The growing number of lesbians indicates a decline in American morals.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

7. Female homosexuality in itself is no problem, but what society makes of it can be a problem.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

8. Female homosexuality is a threat to many of our basic social institutions.

1	2	3	4	5

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

9. Female homosexuality is an inferior form of sexuality.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

10. Lesbians are sick.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

11. Male homosexual couples should be allowed to adopt children the same as heterosexual couples.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

12. I think male homosexuals are disgusting.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

13. Male homosexuals should *not* be allowed to teach school.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

14. Male homosexuality is a perversion.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

15. Just as in other species, male homosexuality is a natural expression of sexuality in human men.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

16. If a man has homosexual feelings, he should do everything he can to overcome them.

1	2	3	4	5
Strongly	Disagree	Uncertain	Agree	Strongly

Disagree

--	--	--

Agree

17. I would *not* be too upset if I learned that my son were a homosexual.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

18. Homosexual behavior between two men is just plain wrong.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

19. The idea of male homosexual marriage seems ridiculous to me.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

20. Male homosexuality is merely a different kind of life-style that should *not* be condemned.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

Appendix C

Follow-up Survey

Instructions: In order to get a sense of how you felt during the study with the experimenter, please answer the following questions. All of this information will remain confidential, and the experimenter will not see your responses. Once you have completed this survey, please place it in the envelope and seal it.

1. How likeable does your experimenter seem?

1	2	3	4	5	6	7
not at all						
very much						

2. How motivated are you to get along with the experimenter?

1	2	3	4	5	6	7
not at all						
very much						

3. To what extent do you feel that you and the experimenter have things in common?

1	2	3	4	5	6	7
not at all						
very much						

4. How important is it for you to feel as though the experimenter likes you?

1	2	3	4	5	6	7
---	---	---	---	---	---	---

not at all
very much

5. How motivated are you to put yourself in the experimenter's shoes?

1 2 3 4 5 6 7

not at all
very much

6. How important is it for you to try to think about yourself from the experimenter's standpoint?

1 2 3 4 5 6 7

not at all
very much

7. To what extent have you tried preparing for the upcoming tasks by imaging how the experimenter will view you?

1 2 3 4 5 6 7

not at all
very much

8. To what extent are you able see the world through the experimenter's eyes?

1 2 3 4 5 6 7

not at all
very much

9. How easily were you able to take the perspective of the experimenter?

1 2 3 4 5 6 7

not at all
very much

10. How able were you to understand the experimenter's standpoint?

1 2 3 4 5 6 7

not at all
very much

11. To what extent do you think the experimenter holds stereotypic views of homosexual, bisexual, and transgendered individuals?

1 2 3 4 5 6 7

not at all
very much

12. To what extent do you think the experimenter holds egalitarian views of homosexual, bisexual, and transgendered individuals?

1 2 3 4 5 6 7

not at all

very much

13. How likely is it that the experimenter expects *you* to hold stereotypic views of homosexual, bisexual, and transgendered individuals?

1	2	3	4	5	6	7
not at all very much						

14. How likely is it that the experimenter expects *you* to hold egalitarian (unbiased) views of homosexual, bisexual, and transgendered individuals?

1	2	3	4	5	6	7
not at all very much						

15. To what extent do you endorse stereotypic views of homosexual, bisexual, and transgendered individuals?

1	2	3	4	5	6	7
not at all very much						

16. How much do you endorse egalitarian (unbiased) views of homosexual, bisexual, and transgendered individuals?

1	2	3	4	5	6	7
not at all very much						

Please circle the appropriate response:

1. Are you:

Male

Female

2. Are you:

African American/Black

Asian/Pacific Islander/South Asian

Please specify. _____

Caucasian/White

Latino/Hispanic

Please specify. _____

Middle Eastern

Please specify. _____

Native American/Alaska Native

Biracial/Mixed race.

Please specify. _____

Other. Please specify. _____

3. Are you currently a student?

Yes

No

3a. If Yes, what year in school are you?

1st

2nd

3rd

4th-5th

Graduate Student

It would be helpful for us to know, for future sessions, if the instructions given to you by the experimenter were understandable. Were the instructions clear?

Did anything in today's session strike you as odd or unusual?

Sometimes in studies in social psychology, participants believe there is more going on than meets the eye. It would be helpful to know if you felt that way about this particular session. What hypothesis did you think we were testing? Did thinking this influence your responses in any way?

Before being asked this question, had you noticed the tshirt that the experimenter was wearing?

YES

NO

If "yes," what did you notice about the shirt?